

**The National Academies**

**Workshop on Research Gaps  
Causes and Consequences of  
Child Food Insecurity and Hunger**

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**Proceedings by:**

**CASET Associates, Ltd.  
Fairfax, Virginia 22030  
(703) 266-8402**

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**PROCEEDINGS (9:00 a.m.)**

## Agenda Item: Introductions

DR. CITRO: Okay, well thank you very much. I am Connie Citro. I am Director of the Committee on National Statistics here at the National Academy of Sciences. I want to welcome you all on behalf of the CNSTAT, as we are called, and the Food and Nutrition Board, to what I think will be this very important and stimulating and I hope consequential workshop on Research Gaps and Opportunities to Advance Understanding of the Causes and Consequences of Child Hunger and Food Insecurity in the United States. I could not think actually of a more important topic at this time of continued economic distress for so many American families and children.

You are here at the National Academy of Sciences, recently renovated building. The Academy is celebrating its 150th year. On March 3, 1863, Abraham Lincoln signed a congressional charter to establish the Academy as an independent nonprofit honorific society, which, in return for this charter, was to advise the government on any matter of science or art, where art kind of loosely meant technology.

The Academy has grown since then. It particularly expanded during World War I, and it is now composed of a number of operating divisions and about 60 or

so standing boards or committees who organize the work of the Academy in a particular intellectual area of inquiry.

The Food and Nutrition Board and IOM are actually one of the oldest of these four and goes back to 1940. It has done much work related to the nutritional health of children.

The Committee on National Statistics is not quite as old, 1972, but we are getting there. The mission is to improve the statistical methods and information on which public policy decisions are based. We have done a fair amount of work in the past couple of decades on evaluating food assistance programs, measuring food insecurity and hunger, and using census and survey data to estimate eligibility for the WIC program and school meals.

The members of the standing boards and committees such as CNTSTAT and FNB, serve pro bono, as do all of the experts who organize our workshops and serve on our consensus panels. The funds from the agencies pay for the staff and the infrastructure to support the work of the volunteers. I do want to thank the Economic Research Service and the Food and Nutrition Service of USDA, which asked CNSTAT and the Food and Nutrition Board, to undertake this workshop.

Margaret Andrews, who I understand has just retired from ERS, was our principle contact, and I wanted

to thank her and express our appreciation that you may pass on to her for her being so helpful to us during the process of getting the project organized, assembling the Steering Committee and organizing the workshop.

I also want to thank the staff, particularly Nancy Kirkendall, who has been up here getting people's presentations loaded up, senior program officer with CNSTAT. She recruited the workshop steering committee members and worked with them to organize the event. Agnes Gaskin and Anthony Mann, who you have seen manning the desk out there, has very ably handled all of the logistics for the workshop.

Most of all, I want to thank the Steering Committee, Jim Ziliak who is the chair, Judith Bartfield, Debra Frank, Sonya Jones, Susan Parish and Rafael Perez Escamilla. I had been cc'd on their emails as they have organized this workshop, and I can tell you the volume and intellectual content, and, well, someone couldn't come, but how about someone else, and so on. They have been working really, really hard. This should be a very informative workshop to further the goal of understanding the research gaps and opportunities regarding child hunger and food insecurity.

You will find their bios in the workshop materials along with those of the authors of the papers

that were commissioned for the workshop, and we are very appreciative of those folks who prepared papers on somewhat short notice.

I look forward to an interesting, informative, and, again, I hope consequential in the sense of helping ERS and FNS set their research agenda in this important area. This is a public workshop. The discussions are being transcribed. Staff, after the workshop, will prepare a summary of the proceedings that will go through the National Academy of Sciences report review process and be made publicly available.

The presentations and papers will be posted on the workshop website. I believe we just got some of them this morning. It would just be on the CNSTAT Homepage. Let me now turn the podium over to Mary Bohman, Administrator of ERS. She is going to be followed by Steve Carlson, Director of Research Analysis at FNS, and the workshop chair, James Ziliak of the University of Kentucky, Department of Economics, to say a few more welcoming remarks. I am going to sit back and truly expect to learn and relish watching all of you in action. Thank you so much.

DR. BOHMAN: Thank you, Connie. It is really a great pleasure for me to welcome you to this workshop. Similar to Connie, I appreciate the time and effort that

everyone is taking to engage in this important topic that is going to be discussed over the next two days.

The workshop here reflects USDA's commitment to ensuring that all America's children have access to safe nutritious and balanced meals that are essential to healthy development. Today, over half of the department's budget is directed to this strategic goal, and yet the evidence indicates that more needs to be done. Too many households do not have sufficient resources to ensure such access at all times. This is especially true for children.

According to the latest data from my organization, ERS, on household food security, almost 8 million households with children in the United States struggle to put enough food on their table every day at some point during 2011. In almost 4,000 of those households, children along with adults were food insecure. In 374,000 households, one or more children were hungry or skipped meals because the household lacked resources to provide adequate food.

So the research and work ERS does each year to produce these estimates represent one of our most important statistical indicators. However, documenting is important, but is only the first of many steps to understand and address this problem. The statistics we have just heard on child hunger and food insecurity suggest the need for

further concentrated effort by USDA to enhance our understanding of how this situation has come to be and what can be done to improve it.

Congress, through the Healthy Hunger-Free Kid's Act, has set aside special funds to address this issue, and that is one of the motivations for why we are here today. It is to discern how we can best use these resources in developing a research agent. ERS is very pleased to be in partnership with the Food and Nutrition Service on child hunger research. As for our organization, we are the primary source of economic information and research at USDA. We believe strongly that effective public decisions are made best by close collaboration between research agencies like ours and those that deliver the program such as FNS.

Over the past several decades, our two organizations have collaborated closely on a broad range of research on USDA's Food and Nutrition Assistance Program. The statistics that I mentioned just a minute ago are one of our most important and fruitful partnerships. This is a project that has been led by Steve Carlson, Mark Nord, Margaret Andrews, who Connie just mentioned as recently retired, and Alisha Coleman-Jensen who is here today. This workshop is also supported by that partnership. We are

very pleased to be working for the National Academy including CNSTAT and Food and Nutrition Board.

I will just close by saying that we are looking for your ideas and independent guidance. We very much look forward to hearing from all of you in the next few days. I thank you for coming to D.C. for this workshop.

DR. CARLSON: I want to add my voice of welcome to all of you and gratitude for the staff at National Academy and the committee who has brought this together, to Mary and her colleagues who have been working with us over the years, and to all of you for taking time out of a busy schedule to join on us on a lovely spring day in Washington D.C.

I was reminded as walked into the room this morning. It was just a bit over 20 years ago that a group like this gathered in a place like this to begin the process of talking about whether it was even possible to develop a measure of food insecurity and hunger in the United States. After a long road traveled here we are.

I can only hope as sort of a capstone on this effort that the discussion that we have today and tomorrow will lead to that kind of next breakthrough step to take us a level beyond where we are now. I look forward to hearing the discussion and summary and insight as to what we have learned so far. I really encourage all of you to think

really hard about where the critical gaps in our understanding are so we can take that next step.

In addition to the 10 million dollars The Healthy Hunger-Free Kid's Act provided us to support research into the causes, consequences and characteristics of hunger, it also gave us 40 million dollars to test ways to end childhood hunger. I have to confess that a group of us at FNS have really been struggling over the last year since that money became available to figure out how to make an effective use of that as well.

The results of this workshop will be too late to answer that question, because the money will expire before the research that emerges from these discussions provides fruit. I will remain optimistic and hopeful that it will support the next generation of research and take our understanding of the causes and consequences of child hunger to the next level. Maybe the next generation of researchers won't be here talking about what we do to end this problem.

I commend you for taking time out. I welcome you all to Washington, D.C. and look forward to a great day and a half. Jim.

DR. ZILIAK: Good morning. Thank you all for joining us. I would like to first begin by thanking the Sponsors, Economic Research Services and Food and Nutrition

Service for providing the opportunity for us to gather here together to discuss some very important research, both what we know don't know and what we need to know about food insecurity amongst children in the United States.

I would also like to take the opportunity to thank Nancy Kirkendall and Connie Citro at CNSTAT for their amazing organizational skill at helping to pull this together. In particular, I would like to also highlight and Connie mentioned the names of the steering committee, Judi Bartfield, Debra Frank, Sonya Jones, Rafael Perez Escamilla and Susan Parish. They really stepped up to the plate in very short order for this conference to help provide ideas and names, and as Connie mentioned, there were just scores and scores of emails between us, and I really want to thank them for their willingness to do this.

I also want to thank the speakers and discussants because this event has come together relatively quickly, and I want to thank you for your willingness to participate, to provide your insights and your expertise to this important issue. I would also like to take the opportunity to thank the Food and Nutrition Service who has been funding since 2010 the Research Program and Childhood Hunger that the Center for Poverty Research is organizing. Craig Gunderson is a co-investigator with me on that project. This project, for those of you who aren't aware

of it is providing research grants to academics around the country to do work on childhood hunger.

There is a limited amount of research that has been completed to date. Most of it will be available in 2014, so stay tuned going forward. I hope, and I think, that some of the questions that will be raised today will be answered in some of the projects that will be forthcoming over the next year and a half. I suspect there will be many additional new questions in gaps, both raised today and raised by the research as it goes forward.

This morning, we have two sessions. The first is Session I: Individual and Household Determinants of Child Food Insecurity and Hunger. The moderator of the panel is Susan Parish from Brandeis University. Susan is the Nancy Lurie Marks Professor of Disability Policy and Director of the Lurie Institute for Disability at the Heller School for Social Policy and Management at Brandeis. In the session, the speaker will be Craig Gunderson at the University of Illinois. Our discussants are Sanders Korenman from Baruch College and the City University of New York and Alisha Coleman-Jensen from the Economic Research Service.

So the format has the speaker presenting for around 30 minutes and then each discussant gets roughly 15 minutes. So that should leave at least 15 minutes at the end for open discussion. Then we will take a break. We

will then move to Session II which is Contextual Factors Linked to Child Food Insecurity and Hunger. Again, Susan will be the moderator for Session II, and our speaker there is Scott Allard of the University of Chicago. The discussants are Lucia Kaiser from University of California Davis and Bruce Weber from Oregon State University. Then we will break for lunch. Then we will start up again afterwards.

I look forward to hearing from our speakers and our discussants and the discussion in the audience today. It looks as though this is live, so the speakers will be notified when it is a warning sign and then a red light, it looks like. I see the time there, but it says zero, so, Craig, that means your time is up. We have flashcards as well. Without further ado, I think we are two minutes early, so we are ready for you, Craig. If the first panel would please come up, Susan and Craig and Sanders.

**Agenda Item: Session I: Individual and Household Determinants of Child Food Insecurity and Hunger, Moderator Susan Parish, Brandeis University**

DR. PARISH: Good morning. I am Susan Parish, and I am delighted to open our workshop today. I would like to introduce our speaker as well as the discussants, and then we will have as much time possible for important work that they are going to be sharing with you today.

Craig Gunderson is professor in the Department of Agricultural and Consumer Economics at the University of Illinois. He also serves as Executive Director of the National Soybean Research Laboratory. He is a member of the Technical Advisory Group of Feeding America and is also lead researcher on Maps and Meal Project Feeding America. His research primarily is focused on the causes and consequences of food insecurity and on evaluations of food assistance programs. He earned his PhD in economics from the University of California at Riverside.

We are going to switch the order this morning of the discussants, and Alisha is actually going to go next. She is a sociologist in the Food Assistance Branch at the Economic Research Service of the USDA. Her research focuses on the measurement and determinants of food insecurity and effects of food and nutrition assistance programs on food insecurity. Her recently published work examined food insecurity in households with working age adults with disabilities, near and dear to my heart. Prior to joining ERS, her research as a grad student at Penn State broadly encompassed the wellbeing of rural families. She also served as an AmeriCorp Vista volunteer in Tompkins County, New York, where she helped coordinate services to rural food pantries. She earned her PhD in rural sociology and demography from Penn State University.

Our second discussant is Sanders Korenman, an economist and professor at the School of Public Affairs at Baruch College, CUNY. He served as Senior Economist for Labor Welfare and Education for President Clinton's Council of Economic Advisors. He was a member of the board on Children, Youth and Families of the National Academy of Sciences. He is a research associate of NBER. His recent research includes studies of the measurement of childcare quality and analyses of the USDA's Child and Adult Care Food Program. He received his PhD in economics from Harvard University. Please join me in welcoming these three speakers.

**Agenda Item: Speaker: Craig Gunderson,  
University of Illinois**

DR. GUNDERSON: I want to begin by thanking the organizing committee very much for inviting me to a present and part of this and also to FNS and ERS for funding this.

The title of my talk today is Individual and Household Determinates of Food Insecurity and Hunger. One thing they have asked me to do without giving me any more time is to just talk a little bit about food insecurity so we are on the same starting point. Now these next few slides are things that everybody has always seen, so I am not going to read through them, but I am going to make a few comments.

First of all, my talk today, usually when we talk about food insecurity, it's based upon the Core Food Security Module. Some of the work that I am going to be reviewing today was either based on other types of questions about food insecurity or a subset of these 18 items, just so you are aware. This is the standard way to measure it. Here are some of the questions from the least severe to the most severe that is asked on here.

Finally, these are the categories. Again, with categories, I am going to be reviewing some work that uses different types of categories for each of these. One thing is the very low food insecurity amongst children, and this is a category that the first two rounds of the research on Childhood Hunger Program, I am going talk a bit more about later that was headed up by Jim and myself. This is what we concentrated on. Some of the work looks specifically at this. Also, when we talk about child hunger, I am also going to be talking about other aspects of food insecurity. I will come to that later when I talk about it.

This is standard thing. This is borrowed from the report that Alisha and Mark put together. Every year since 2001, we have a standard measure. It is the off-noted sharp increase in food insecurity and very low food security from 2007 to 2008, which has been maintained to

2011. Depending upon what happens, it probably will be maintained through 2012, I would reckon.

The emphasis of this workshop is on food insecurity amongst children, so there are three lines here. The first one is just food insecurity in households with children. The second line is food insecurity in children, and then very low food security amongst children. This line looks flat, but it only looks flat. It can't have anything else. This is not as flat as it looks. From 2007 to 2008, this actually is a pretty big increase, so just so that we are all aware of that.

In regards to opening remarks by Connie, this is a major issue in part because of the recession. If we look at all of these, people are talking about that the recession made things worse, and, yes, it made it things worse. But even during good economic times, look at 18 percent of American children are in food insecure households. This is not a transitory phenomenon. You all know this, but I just want to point this out is that even though the recession made things worse, it was still always bad.

Now, I have got to talk now about one way to think about when talk about determinates, or at least the way that I am going to be thinking about it since I am relatively new in my abilities, but here is what we want to

think about. Often times what we have is that we are looking at food insecurity, and this food insecurity is a function of economic factors, demographic factors and participation in food assistance programs. What I am talking about today because Dave is going to present later on, on food assistance program participation, I am going to be deliberately ignoring food assistance program participation in this discussion.

When you think about these being the determinants of it, I am going to be concentrating on E and D, the demographic and economic factors. In particular, when I review literature, I am going to be saying, controlling for other factors what influences food insecurity? That is how I am going to speak about it. There are some dimensions I am going to be talking about just for children. There are instances I am going to be talking about this more generally. This is one way to think about it.

Look at this in cross section. Almost all of the work being done on food insecurity is using cross sectional data sets. So this is what we have. What is your food insecurity depending upon your economic factors and demographic factors at the same time. There has been some work that has looked at what has happened to somebody's food insecurity at time T depending upon the determinants at time T, so we can move into some more dynamic analyses

of food insecurity. There has been some work done on this, however, not really that much. These two things I am going to be talking about even less, but it is definitely worth talking about.

This is food insecurity, and we call that duration or something. One of the problems is that we don't have a lot of information about the duration that people experience food insecurity. What is of interest, and I am just going to be talking about this briefly at the end, is how long is somebody food insecure depending upon these concurrent factors? If we think about this at some time point, and a final time point is key, is how this influenced by the realizations of various factors over time? This is the way that I am going to be talking about my presentation today. What factors matter depending upon things, and I am going to frame it in terms of these frameworks.

Now, briefly I want to talk about the Research Program on Childhood Hunger. Somebody can always be immodest, but I am going to somewhat immodest here. Jim and I have put together an amazing group of projects. We really have. I mean, Jim and I deserve some credit, and so does FNS and the advisory board, but really it is because of all of the great work that has been by so many of you. We had just fantastic applications. We put together a

fantastic group of projects. I am going to go through all of these. There is a handout that is somewhere that UKCPR put together on all of these. I am not going to go through all of these in any detail.

A few things I want to point out are that from this first round of grants, we have some results. I am going to be talking about those results from the first round as they pertain to determinants of food insecurity. We have a number of people here that have been a part of this. Sonya Jones is here. The PI on this is Robert Moffet, but Dave Ribar is on this project. These are some of the small grants they will be borrowing from. I should note, for example, Lara Shore-Sheppard is here presenting. She is on this project with Tara. Ali is here.

Coming back to this paper, this is a great paper. One of the things I am also not going to be talking about is the effect of these safety net programs. Also, I am not going to be analyzing the determinants from those studies. I am going to concentrate upon studies that haven't looked at food assistance program participation. That is an example of a paper that I won't be talking about even though it is good. Some of this is covered by Brent Kreider and John Pepper.

This is the round II, and, again, the number of the coordinates, Judi Bartfield is on this. Mariana

Chilton is here. One thing that I want to point is one of the things we think is so fantastic about the projects that we funded is we have brought a whole bunch of new people into this research program, Food Insecurity. One of the goals of this was to bring new people in. For example, Diane, to the best of my knowledge, hadn't done much work on food insecurity-related topics, but she was one of the applicants, and we funded her through this.

So it is great to look out over an audience where we have a whole bunch of people who have the collective wisdom. There is tons of research that has been done on food insecurity, and it is represented in this room. But it is also great to see, and kudos to the program committee for putting together a lot of people on this program who have not previously done work in that area.

These are the large grants that were funded on this. Here are some of the small grants. Again, John is presenting here later today. Just recently we notified those who received their grants and those who didn't. These are the large grants. These are the small grants on this. Before turning to all of this, it is fantastic that we are all together here talking about this. You want to know something? If we are together in a year and half, we could have filled up the entire two days with our findings from these studies. I am excited about the results from

Round I, but wait until we get to the results also from Round II and Round III. It is an amazing amount of information. We are excited about this program on childhood hunger.

Now I want to turn to some of the findings on determinants. I am going to first talk about the identified determinates within like a static or cross sectional model. These are things that have been discovered based upon the studies that we have funded. First thing I am going to talk about, these are the identified determinants that are amongst children. These are identified childhood food insecurity or very low food insecurity amongst children. These are some of the determinants. Most of these really are not going to be big surprises. These are all things that we may have anticipated. I am not going to read all of these off.

Two things that are relatively new about this is that there hadn't been previously really any work done on incarceration and the impact of that on food insecurity. One of the projects that we funded found that having a parent who is ever incarcerated does lead to increases in the probability of food insecurity.

Another finding is that these are all in comparison to the opposite, in older children versus younger children, low levels of education versus highly.

This is something that is quite interesting. In households that had a grandparent, this was protective against food insecurity. In other words, it helped reduce the probability of food insecurity. This is one of the reasons why it is worthwhile to look at children in particular is that the work that Jim and I have shown is that having a grandchild in a house leads to increase in probability of food insecurity for seniors, even though it leads to potentially reductions in food insecurity for children. It points out one of the reasons why we might want to look at children independently from other groups because it can make a difference.

This is what we found. These are some of the other identified determinates. What I am going to be talking about now are some of the findings from the literature. I have tried to be exhaustive, so I am not going to put names next to these things. The previous sets of slides were those based upon that. These next sets of slides are the ones that find, that identify the determinants when you look at the full household. So these are household level determinates of food insecurity, in addition to the ones that I put on the previous slide. When we think about each of these, and two other caveats about this is I tried to be as exhaustive as possible. I really did concentrate on papers and reference journals and

ERS reports. I am sure that there are other things definitely that I am missing and point that out to me if did miss that.

These are things that we would imagine would also make a difference for households with children, and they do. One thing that I am not going to be covering here is for example work on the determinants of food insecurity amongst seniors. I know Ed Frongillo has done some work on that, Jim and I have done some work on that, but I am not going to be talking about those sorts of factors because often times those households do not involve children, but of course sometimes they do. These are for households with children and potentially households without children.

One of the factors, these are the determinants, is those with lower financial management skills are more likely to be food insecure. Most datasets do not have observations of American Indians, but when you pool the cross-sections, as you can, the household head as American Indian is at high risk of homelessness and will be in the summertime. We know that when school meal programs run out in the summer, children are more likely to be food insecure. Unemployment, not receiving child support for households where the father is outside the home, and those households that are not receiving child support, are more likely to be food insecure, and having a noncustodial

father that does not visit regularly. The work by John Cook has shown that social capital, lack of access -- this can lead to increases in food insecurity. Not speaking English in the home and then having a cigarette smoker in the home also leads to increase in food insecurity.

So these are some of the identified determinants that happen in other contexts that have been shown. We might imagine that they may or may not also make a difference if we looked at food insecurity amongst households with children in particular. In a lot of these studies it really was restricted to households with children, but the focus wasn't on food insecurity amongst households with children.

Now, a little bit on the determinants within a dynamic framework. These are the studies. This is mainly from a study from Ali. These are some of the identified determinants of food insecurity in households with very low food security amongst children is if there is changes in residences, declines in child's health and declines in maternal health have all been identified as things that lead to changes in very food security amongst children. As I mentioned before, there really has been very little work done in this area. Here is some stuff that has been done on the dynamic for all types of households -- negative income shocks, changes in household composition, lack of

assets and becoming unemployed. For example, Dave Ribar has some work that has looked at some of these identified determinants in a dynamic framework. There really hasn't been much done on this. I am going to come back to this later.

One thing they asked me to do along with reviewing briefly what I mean by food insecurity is to talk a little bit about what some of the open questions are. In these last 15 minutes, I am going to structure this over three dimensions. First of all, what are the open questions about the determinants? Secondly, it is about how we interpret these determinates. What sorts of interpretations do we want to have about this? A third thing is what we can do in terms of data to allow us to better talk more about these determinates.

Alisha and Mark have a nice paper about the effect of disability status on food insecurity. One question that remains, and we have to look more at this, is why does disability status matter? What exactly is it about having a disability that means markedly higher rates of food insecurity. Some are food access issues. It might be more difficult for someone with a disability to access food. As part of this, it is accessing the foods, but also if somebody is lower income having the financial ability to access this food. Is it barriers to labor markets? Is it

that we know that persons with disabilities have substantially higher healthcare costs? How does that influence this? All of these things are open questions that we can look at. I am going to come back this a little later, but often times a lot of the work has identified that these are determinates. We don't know why they matter. From a policy perspective delineating between these is really important. Clearly our policy response if it is barriers to the labor market are very different than if it is a food access question. We really have to take apart some of these things.

Another thing, as I mentioned earlier, immigration status has been shown to be related to food insecurity. There are other questions like does the type of immigration status matter, documented versus undocumented, citizen versus noncitizen. These are the dimensions that are important, partly because in usual data sets, we don't have a lot of information about somebody's status, especially in the case of documented versus undocumented. This is something you usually don't ask about, but also you might imagine the persons that are undocumented may not even be part of a lot of these data sets.

The next one is why does education matter? We consistently find that having lower levels of education

lead to higher rates of food insecurity even after controlling for income and other measures of human capital. The question is why exactly does education matter? Clearly education matters in a lot of contexts even after controlling for these other factors. Is this the measure of human capital, or one other thing is that it may be a proxy for financial management skills. Maybe the persons with higher levels of education is that it is not so much that they have more education, which a lot of some folks have higher human capital, but may be unable to manage especially those with lower incomes, be able to better manage these when they have lower income.

This ties into my next point here. I think this is a really important question that I wish we could get at. Depending upon the year, most, or almost most, poor households are food secure. We have literally millions of families are poor. They struggle every month, but they are food secure. That I think is really an important question. What are they doing differently than other groups who are also poor? Do they have better financial management skills? One other possibility is that they have more knowledge about how to get by on less, and therefore they are able to better manage their limited incomes. Another possibility is under-reporting of income. We know amongst those with lower incomes on surveys often times under-

report their income. So maybe some of these poor families if we looked at other measures of income may not really be poor, and that is part of the story. I don't know. I am just speculating about this. I think this is one of the more important questions about this. If we could figure this out, it is very, very hard to raise incomes, but it is not easy to get at some of these issues, but at least we will say what are these coping strategies that low income families are using allow them to be food secure?

Conversely are about 10 percent of households with incomes above the poverty line are food insecure. Despite seemingly having enough money to be food secure -- I say seemingly because there are lots of debates about whether or not the poverty line is appropriately defined. We have to look at all of these issues is the poverty line appropriately defined and things like that. Still, it is amazing how when you look at food insecurity, even when you get pretty high up in the income spectrum, there are still food insecure households. I think this the flip side of the first point. Is this something worth looking at? Is it because a lot of these houses are on fixed expenses? One of the speculations is that during the recent economic downturn a lot of families may have moved from middle class households to lower-middle class status, but they had these fixed expenses that they still had to pay. Often times,

food is an area where people can cut back on if you cannot cut back on say a mortgage payment or something. You can cut back on that.

In the U.S., in most states, the gross income cut-off is 130 percent of the poverty line for SNAP. Moreover, even in states with higher limits for SNAP is the fact that persons are eligible anyway because they don't meet the net income criteria. We know that a lot of these families do not have access to food assistance programs, so it really becomes their only source to go to food pantries and the like to get more food.

The other thing is lack of knowledge about how to get by on less. If I had a lot less, I would make tons of mistakes now with my money. The consequences to make your mistakes when you are poor are high. The consequences of me making mistakes are not really that big of a deal. If all of the sudden somebody was not poor before becomes poor or at least not poor but above the poverty line is they just don't know how to get by on less in comparison to those who are poor who may actually know how to get by on this.

This is something that there are more and more multigenerational families. There is some evidence, like I said that some of the work from the research program Childhood Hunger Round I showed that having a grandparent

in the household was protective against food insecurity for the children in the household. Why is this? Is having a grandparent in the household help make for a less expensive form of childcare? We know that it is expensive to get by on SNAP benefits or whatever certain amount of money that people have, or they pay bills at lower cost. I don't know the reason, but I think we have to figure out what exactly is it about multigenerational families that may be protective against food insecurity.

I am not going to be talking about the term food assistance programs. One thing to look at is how to determinants are differ by whether they participated in SNAP. Like households with recent changes in structure. How does this make a difference? For example if somebody transitions from one type of household structure to another, and there is discontinuity in their SNAP benefits. Given their household size, does that make a difference? How do determinants differ by whether they are actually receiving meals through National School Lunch Program and WIC? We know older children have higher rates of food insecurity than younger children. We also know that rates of participation in the National School Lunch Program decline quite a bit as children age. Are those two things connected? We know the National School Lunch Program is protective against food insecurity. Maybe this is one of

the reasons. In thinking about some of these determinants, I think it is also worthwhile to think about how these food assistance programs may enter into this.

Now I want to talk about interpretations. One thing is the literature has tended to say this variable matters. This variable doesn't matter. This one is statistically significant. This one is not, et cetera. I think that is important. I think we have to begin talking more about the relative magnitudes. What matters more and making some comparisons across the different coefficients? I think that is the next step on this. We don't need to be told that having lower incomes makes a difference, or having lower levels of education -- the magnitude is now important.

Like the poverty literature the food insecurity literature has tended to say somebody is food insecure or they are food secure. When we have these other measures, we can look at the incidence of food insecurity, i.e., food insecure/food secure. Within the class of Foster, Greer and Thorback class of poverty measures, we also have these other measures where we can see the depth of food insecurity and the severity of food insecurity. Clearly, if somebody responds affirmatively to 15 questions on the food insecurity module, they are much worse off than somebody responding affirmatively to three questions. We

should be portraying that in our models. I think that we should be using these other measures more and more and thinking about them. These measures have been developed, so they are out there, but they are not used that much. Then again that also happens in the poverty literature more often than these other measures are not used that much. I think we should be using these more.

Whenever I give presentations, like this came up when I was given a paper of University of Saskatchewan on last Friday. Somebody said, they didn't put the question this way, but it made me thing about this. Some of these determinates might be tied into food insecurity. For example, somebody with higher education levels may be less likely to report that they are food insecure because maybe they have a different understanding of the questions. I love the food insecurity questions. I really do. I think it is a fantastic measure, and I have to defend this every time I speak, especially amongst economists. The point being is that it is a great measure. We still have to think a little bit about how these determinates might differ. Maybe it is not really influencing food insecurity. Maybe it is influencing how people respond to the questions.

What has been disappointing to me is that we have the food insecurity literature in developing countries and

the food insecurity literature in the U.S. These hardly ever come together. There are so many insights that we can learn from them and they can learn from us. I know that we have got some great, great studies out there. I think we need to start moving in that direction and looking more and more at these things.

The other thing is what consequences of food insecurity might actually be determinants of food insecurity? Sometimes it is clear that something should be an exogenous determinant of food insecurity. In other cases, the causality really isn't clear. I am thinking about that more carefully and will try to figure out how to isolate these determinants as consequences is relevant. More and more work is being done in Canada and to a lesser extent in Western Europe. I think it is worthwhile to compare the results from the U.S. with other countries. Mark Nord has a paper comparing U.S. with Canadian results and things like that.

Again, I love the food insecurity questions, but food expenditures are often inconsistent with responses in food insecurity questions. On average, food insecure households spend less on food than food secure households. You have a lot proportion of food insecure households who are spending quite a bit on food. You have other food secure households who are spending next to nothing on food.

Thinking about this, it may be the food expenditure questions that are wrong. People are misanswering those rather than food security, but I think it is something worth looking at because it will figure out how we think about responding to these questions.

There was a great question on CPS which hardly anybody uses. We use it in our map the meal gap work, but hardly anybody uses this. There is this greater question, "How much more money do you need to be food secure?" This is a perfect question to be analyzed. Who knows better than people who are food insecure how much more money they need? We should do more work using this question. It is really a neat question and could give us a lot of insights.

Ed Frongillo has done some neat work, as have others, about if you ask children the questions about food insecurity rather than the adults and how might the determinants differ from data issues. We always talk about food insecurity, but we know that a lot of, in our data sets a lot of people are being overlooked, namely homeless persons, persons who are marginally housed. In other words, they are doubling up and maybe not wanting to double up, recent immigrants, persons without immigration documentation. We need more qualitative data. Transdiscipline is one of those stupid terms that really don't mean much. I think in this context, it probably does

mean something. In particular, we need to use economic theory in these qualitative studies.

For the people who do qualitative work, we need more economists on this. I am sure you could say the same thing about some of our studies. Really, economic theory should be underlying a lot of these qualitative studies. I think it is worth mentioning that. There is a great new data set from ERS called the ERS food apps data set. I am not sure if this is going to come up in some of our later discussions, but it has a lot of information about food spending and food access. There is a geographic component to this that we can use for this. It is a really neat data set that should give us a lot of new insights into food insecurity.

We need longer panel data sets over longer time periods to get at the dynamic determinants, but also the duration of food insecurity. We can look at duration over five year time periods. I would love to be able to look at this over 20 or 30 year time periods, but there is not currently a data set. I am done.

**Agenda Item: Discussant: Alisha Coleman-Jensen,  
Economic Research Service USDA**

DR. COLEMAN-JENSEN: Thank you to Craig for his helpful comments and summary of the food security literature to date, and thank you all of you for being with

us. In thinking about my discussant comments, I kept coming back to the question of why are we here today. I think it is important to identify research gaps in the literature and also provide a summary of our knowledge. I think the important thing is that we are trying to identify research that will actually move us toward improving food security or reducing food insecurity rather than just producing research for research's sake.

This is just a brief overview of some of the questions I would like to talk about. I am not proposing to provide answers to all of these questions, but discussion points. Craig mentioned the different levels of severity, and I would like to think about determinants of food insecurity at what level of severity and where should we focus our research efforts. Craig also mentioned what about the mechanisms through which determinants affect food insecurity. He used the example of disabilities which I will use as well. I think we know a lot of determinants, but in a lot of cases, we don't fully understand the mechanisms behind those determinants of why they affect food insecurity.

Do we need to identify more determinants, or, again, figure out to use what we know about determinants? Finally, I will close with a few policy questions. That will be brief because I know there are sessions later on

today that are focusing specifically on policy. Craig provided a nice overview of our measures of food security status. This pie chart is for households with children by food security status in 2011. This is primarily reviewed, but to make sure we are all on the same page again, and the majority were food secure, 79.4 percent, but a substantial share about 21 percent of households with children were food insecure in 2011.

Adults were food insecure in 10 percent of these households. Children also experienced direct effects of food insecurity in the rest. In these households, there was direct evidence that there were reductions in children's dietary quality and quantity. In 1 percent of households with children experienced the most severe range of food insecurity, so the parents were saying they weren't getting enough to eat because of lack of resources for food.

Where should we focus our efforts? We know from the research on outcomes of food insecurity that children in food insecure households have detrimental effects on their development, whether or not there is evidence that children themselves have reductions in their dietary quality or quantity. There are probably more severe effects of food insecurity for households where children

actually aren't getting enough to eat, obviously, on their diet and nutrition and health outcomes.

The legislation in the Healthy Hunger-Free Kid's Act states specifically that we are to conduct research on the causes of childhood hunger and food insecurity. So I think we are justified on focusing on any and all levels. I think it is an open question of where we should really direct our investment. As Craig mentioned, we know most about the determinants of the broader condition of food insecurity. Some of the recent research out of the University of Kentucky Center focuses more on the severe conditions of food insecurity among children with very low food security. It is difficult to study very low food security among children because it is relatively rare affecting 1 percent of households with children.

Even in large national data sets, the sample sizes are relatively small. In the Current Population Survey Food Security Supplement, which is the source for USDA statistics on food security, in 2011, 127 households in the sample had very low food security among children. This really limits the types of research questions that we can address with these data sets. This is one of our largest data sets that include the food security measures. We can probably learn more from the specific efforts like the Witnesses to Hunger Project that Mariana Chilton heads

up that focuses on the most vulnerable populations that are likely to experience these severe conditions.

We act on the assumption that the determinants of food insecurity, at the broader levels of the food insecurity, also affect very low food security. This is probably justified given that we know that parents will try to protect children from experiencing those more severe conditions. If we invest in our efforts in ways that we know that will help parents maintain their food security, we will probably also help children.

Craig mentioned work that Mark and I have published recently on disability as a determinant of food insecurity. We examine disabilities among working age adults, and we found that disabilities were an important risk factor for food insecurity. Not only was food insecurity was more prevalent in these households, but it also tended to be more severe. There was much more very low food security in these households than we might expect. We need to do more research in this area to identify how disabilities affect food security as Craig mentioned. I think this is true for a lot of areas of food security research that we really need to understand the mechanisms especially when we think about moving forward to changing or creating new policies or programs to actually reduce food insecurity.

This slide shows the prevalence and severity of food insecurity among children. This is where children have direct effects of reductions in dietary quality and quantity. This is 2010 and 2011 food security data from the Current Population Survey. We see here in that is not in labor force due to disability. These are households with children in which adults were unable to work due to disability. We see that about 21 percent of these households have food insecurity among children. So this is really an important risk factor compared to households with no working age adult with a disability, about 7 or 8 percent had food insecurity among children. These other reported disabilities are households where an adult reported a disability like a physical disability or cognitive disability, but they didn't report being unable to work due to disability. So that is the distinction between those categories.

We know almost nothing about how disabilities among children affect food security. Susan Parish who is our moderator has published some work in the Journal of Exceptional Children that examines material hardship among households raising children with disabilities. She found that food hardships and other types of hardships were higher in those households. An important finding is that for households without disabled children, as their income

increased above the poverty line, the number of hardships decreased a lot. But this wasn't the case with households with disabled children. Mark and I also found this in our research. It seems that households that include disabled members really need a lot more income to make up for the cost associated with disabilities. There are new research opportunities in this area. FNS funded data collection of using the ten item adult food security module and the National Health Interview Survey. That is included in the 2011, 2012 and 2013 data.

If you are not familiar with the National Health Interview Survey, it includes a wealth of data on disabilities and health impairments. As a food security researcher, who is just getting into the disability research, I am really overwhelmed by the data. There is a lot of detail in there on disabilities and health impairments. It is for all household members. We can look at children and adults in the same household who have disabilities. This would be a really great research opportunity. ERS has a cooperative research agreement with some researchers at UCLA to start examining this data, but we are happy to have others examining it as well.

Craig went over a lot of the determinants of food insecurity. When I was talking with Mark about the conference and the presentations, he raised the question of

how much variation on food insecurity is explained by known determinants. I think this is a really important question and can kind of help to guide our resource investments. If we put all of those determinants in one study, how much would be explained? Bartfield and Dunavan have a nice study based on state hunger rates where they explained variations in state hunger rates using a variety of household factors and state factors. They found that about 86 percent of the variation was explained, but we don't know if that also applies to household food insecurity.

I think it would help to determine how much we know and whether we need to invest more in identifying new determinants or invest more in understanding more about the determinants that have been identified. Determinants are important, but we also need to translate those determinants into policy and perhaps targeting specific populations which is a more difficult question I think. A cautionary note here is that I think it is important not to lose sight of the characteristics of the majority of food insecure households. So I have here a simplified example that as Craig mentioned unemployment is a key determinant of food insecurity. Households with full-time workers are much less likely to be food insecure.

The majority of households with kids actually include a full-time worker. When you look at the

population of food insecure households with children, most of them also include a full-time worker. This is illustrated in these figures. The bar charts again show the prevalence and severity of food insecurity among children. We see the prevalence is much lower for households where one or more parent is employed full-time and much higher for households with unemployed adults or those that are unable to work due to disability. If we look at the pie chart - this is the pie chart of all food insecure households with children and look at the distribution across this, employment and labor force status. Sixty percent of households with food insecure children actually include a full-time worker. Another 15 percent include a part-time worker.

While it is important to target unemployed households and those with disabilities, but if we only targeted those households, we would miss the majority of food insecure households with children. While I think it is important to identify determinants and risk factors, it is also important to keep in mind the population of food insecure households.

I am just going to close with some research questions. There are some questions related to policy and determinants. In general, current food assistance programs target low income as the primary determinant of food

insecurity. They all have income tests with the kind of implied assumption that higher income households don't need those programs, which Craig suggested isn't always the case. It is an open question. Can we effectively target other determinants of food insecurity with policies or programs such as considering time constraints around food preparation and how that may affect food insecurity.

Financial management skills and then physical disabilities, for example, that makes it difficult to get to a store, so some of those food access issues for certain populations.

Another question related to determinants - Should we target specific programs to specific populations? For example, do we need policies or programs targeting the population of persons with disabilities given that we know that it is an important risk factor? Should we do less targeting and more general programs? For example, the SNAP program, which is available to most all low income households has special provisions for persons with disabilities, such as they can deduct their medical expenses from their monthly income, which would effectively raise their SNAP benefit.

Some of our research where we didn't specifically examine this question, but it suggests maybe we need to do more than that for those households with disabilities. Back to the issue of severity -- this is an analogy that

Mark Nord uses. I think it is a really great analogy to help pinpoint our thinking. What level of severity should be targeting - the tip of the iceberg or the whole iceberg? We can think about the tip of the iceberg being households with food insecurity among children, or the very tip, very low food security among children, those most severe conditions. The whole iceberg is the less severe condition that affects more children, so food insecurity in households with children. As I mentioned, we know that whether or not children have direct effects on their diet quality and quantity, we know that food insecurity among adults in the household affects children.

Can we shrink the tip of the iceberg without shrinking the whole iceberg? If we target very low food security among children or childhood hunger, can we really reduce that condition without trying to reduce food insecurity among all households with children? Personally, I am not sure that we can. I think we need to target the whole iceberg. I think that is an open area for discussion that again can help guide our research investments.

This is just kind of a conclusion slide. Ultimately, we are trying to figure out how we should spend this relatively big chunk of money on research in a way that will improve food security. Again, I want to point us to the notion that we really need to understand the

determinants and mechanisms so that we can better improve design and targeting programs to improve food security or reduce food insecurity. Thank you.

**Agenda Item: Discussant: Sanders Korenman,  
Baruch College, CUNY**

DR. KORENMAN: Those of you who may have wondered why I was staring off into space, there is another projection of the presentation. You may need, if you are in the back, to look at it. I think a few of my slides may have small font. I want to thank the organizers for inviting me. I want to make clear right up front that I do not consider myself an expert on food insecurity, but I was told that the outsider's perspective was welcomed here. As somebody who studied poverty for many years, I could offer some insights that would be of value to this meeting.

The theme for my remarks is up there. The subject of this session is the determinants of child hunger and food insecurity. The theme is that measurement matters and measurements issues affect key variables central to study on determinants of food insecurity. The most important constructs are poverty, food insecurity and program participation, especially the SNAP program. I am not trying to say that there is not research on this. There is some very good research on this including by Craig and Dave Ribar and Mark Nord and other people here, I am

sure, but my point is that understanding measurement problems may not be deep enough or not have informed deeply enough research and related policy analysis on determinants of food insecurity.

Our priorities should be improving measurement validity of the key determinants variables, understanding reasons for measurement problems and then supporting researching on determinants that is informed by an improved understanding of the key measurement problems. It does not treat it secondarily. It really brings the measurement issues to bear on the questions having to do with determinants of insecurity. As I said, there is research on that, but I think we could stand more. The long list of approved projects suggests that more are on their way. The goal of such research would be both to improve measures and to improve our estimates and interpretations of determinants in order to guide policy as Dr. Coleman-Jensen has highlighted.

What I am going to talk about is why measurement matters. I am going to make a few comments on Craig's open questions on determinants. I am going to highlight this with two determinants mysteries. They are not going to be mysteries to anyone in this room. Then draw an illustration on the importance of measurement from the poverty literature. Then I have my own little speculation

on one source of measurement. I am sure people have thought of it, but I would like to highlight it in some more detail.

Why does measurement matter for determinants? Craig's open questions about determinants include why are so many poor households food secure? Why are so many non-poor households food insecure? He mentioned measurement could be underlying this. My question is, is the implication that we need to do more work to explain this as a real phenomenon, or does this fact suggest that we need to have introduced better or more valid measures of poverty into the analyses? How do determinants differ by whether participants are participating in SNAP or not? I think this is a really interesting and important question. Of course, our ability to answer that is going to be affected by mismeasurement in SNAP participation, especially if we are interested in determinants among poor SNAP participants and nonparticipants. This is critical. A mismeasurement of poverty compounds these errors. As Craig mentioned, we know very well that under-reporters are disproportionately represented on the bottom of the income distribution, particularly below half of the poverty line. Why else does measurement matter for determinants. It opens questions and interpretations. What are the relative magnitudes of various determinants? Critical, critical for the policy

analyses that Dr. Coleman-Jensen has mentioned. Obviously these are going to be affected by mismeasurement. The worse the measure, the smaller the magnitude, in general, not always, but in general, and that is going to influence our impression of which determinants matter more than other.

How might different determinants influence responses to food security questions? I am particularly interested in how participation in SNAP affects responses to food security questions. This is out there in the literature. I would like, just from my reading, to see it get more attention.

Here are the two mysteries. The first one is from an excellent paper. I am sure all of you have read it. If you haven't, you should take a look by Gunderson and Ribar published in December 2011. Why Isn't Food Insecurity Ubiquitous at Very Low Levels of Food Expenditure and Income? As they say, this leads to concerns about the external validity of measure, both the food measure and the food insecurity measure. There is the picture from Mark Nord's report on the topic, not exactly the same numbers, but this gives you the idea that even at essentially zero food expenditures, your household insecurity is at about 20 percent. If you restrict it to poor, you can make it higher, but it is still never the

majority according to their paper. It is a really interesting paper.

They conclude that food hardships are underreported at the low end and that should be disquieting to researchers and policy makers. Data may be masking genuine distress, and it may mean that the food insecurity and insufficiency measures will have difficulty registering increases in well-being from policy innovations and economic improvement. The validity issues affect the key questions of interest.

Why SNAP participation isn't inversely related to food insecurity among the poor? That is the other mystery that is out there in the literature on a paper by Craig and Kreider. Policy makers have been puzzled to observe that food stamp households appear more likely to be food insecure than observationally similar eligible nonparticipating households. We find that this food insecurity paradox hinges on strong assumptions about the reliability of the data that are not supported by previous food stamp participation. It overturns reliability in food stamp reporting and overturns a critical finding. They find that error rates as small as 12 percent are sufficient to prevent us from being able to draw firm conclusions about relationships between food stamp participation and

food insecurity. The possibility of misreported food insecurity exacerbates this uncertainty.

They are not claiming in this paper that food stamp use reduces food insecurity; just that they broaden the range of estimates so far that we can't be confident that it is increased. I think that there could be some more work here. This is probably too small to read, but there are all sorts of issues that they raise about validity of all of these measures. I put the slide up there because the knowledge is out there. I am just hoping that the knowledge about these validity issues seeps its way more into the literature on the determinants of food insecurity. It is not a caveat. It becomes a central part of our research on determinates of food insecurity. That is kind of my bottom line.

What about poverty measurement and food insecurity. This is something I know a little bit more about, poverty measurement that is. It should be a concern for studies and the determinants. First of all, if poverty is measured poorly, it is going to bias our estimates of the effects of poverty on food insecurity. Poverty is directly used as a partial screen in the Food Security Supplement Interview. It is also going to be important if we are looking at the determinants among poor people. While if we have a bad measure of who is poor that is going

to affect our estimates of the determinants among the poor. We know that the poverty measure matters for important issues like identifying the poor and the effect of policy.

Two quick examples, Meyers and Sullivan who have done, I think, the most to bring this to the professions attention, at least the economic profession's attentions.

"Our results provide strong evidence that a well-constructed consumption-based poverty measure would be preferable in the validity sense to income-based measures of poverty like the official measure and the supplemental measure for determining the most disadvantaged." It is critical. Who is the most disadvantaged depends on the poverty measure. You don't have to take a position in this debate to recognize that the measure matters. I can't think of a single more important policy use of these measures than the broad sweep question. Did the war on poverty essentially fail or was it successful? Three different measures; the relatively flat one is the official poverty measure. In the interest of time, the bottom one, the green one, is consumption poverty measure, completely different stories about the success of policy and the economy in reducing poverty over time. The measure matters importantly for critical issues of policy analysis down to 3 percent by the consumption poverty measure before the

great recession versus 10 to 15 percent by the official measure.

This paper is a very good paper that takes the issue of poverty measurement and brings it to bear on food insecurity. It is sort of comparing the determinant, the magnitudes of the determinant relationship between the Official Poverty Measure and Supplemental Poverty Measure. This paper was recommended to me by Craig when I mentioned my interest in this issue. Of course, the Supplemental Poverty Measure has problems as well. I think this is a step in the right direction. I think they are asking the right questions.

One problem with the paper is that it confounds the rate of poverty with the measure itself. The supplemental poverty measure in this case is much higher, so each increment in income relative to that measure is a much bigger step up the income distribution. Not surprisingly, you are going to find that there is a bigger effect of poverty when you are taking a bigger step away from it with each measure. This is a working paper. It is just an illustration of the points I am trying to make. But I think it is step in the right direction.

Here is my speculation about a source that may be or may not be unappreciated. You probably recognize this if you worked with the data. This is the very first thing

that you see in the Food Supplement Questionnaire. What is the first thing it does? It tells the interviewer the SNAP program name, and it tells the interviewer whether the family is poor or not. It is going to be used for populating questions. Here is the categorical income measure used to figure out poverty. This is the introduction. Asking you some questions about food and managing your food needs -- nothing about program use yet.

Then we ask a bunch of questions about where you bought food, supermarket, grocery store, et cetera. Tell me the places where you or people in your household bought food.

Next and this is one I want to spend just a little bit more time on. I am going to ask you about the actual amount you spent. If you are poor, I am going to insert the following words: How much did your household actually spend at the supermarket and grocery store last week, including any purchases made with SNAP? Now at this point, the interviewer has not asked the respondent if they are a SNAP person/recipient. Put yourself in the mind of the recipient who is being asked this question. Is this person assuming I am a SNAP recipient? Is this person maybe monitoring something about the appropriate use of the SNAP benefits? Already, it is there. It is not explicit, but it is implicit.

I spent \$80. Coming to the nonfood items, how much of the \$80 was for nonfood items such as pet food, paper products, alcohol, detergents, or cleaning supplies. I am a SNAP respondent, what is that going to make me think about? Does that language remind you of anything? This is the using SNAP benefits poster. It says, I was struck by how similar the wording is on the disallowed items on this information poster to what we are going to subtract from your expenditures. If you want to start having antennas go up and start setting up concerns about monitoring and compliance and so forth among the recipients, that is the way to do it. Use the language from the poster. I like the quality of research. I am sorry I am going to disagree and say I don't care whether it is linked to economic theory or not. It could a lot of help in thinking about how respondents are responding to these questions and also some of the measurement issues we are facing.

It goes through and asks some other things. Since I know I am going to run out of time, how are SNAP recipients who suspect they are being monitored for compliance, and that agencies may share data, or are worried about that their benefits might be jeopardized or reduced, how would you expect them to answer those questions? Would you expect them to truthfully report SNAP participation? Would you expect them to signal that they

are not in need of food assistance? People are aware of the stereotypes of poor people and food stamp recipients and so forth. I think there is some interesting work that could be done on measurement in this area, especially with the help of ethnographers.

It is just returning to my theme, and, again, I know that the knowledge is out there. I know that people have been doing work on these measurement issues. I think Craig is doing some of the best of them. It is almost like we have a left brain/right brain split. I would really like to see more of these papers put the measurement issues at the center when thinking about determinants. That is all.

DR. PARISH: Thank you very much, all three of you. We have time now. We have about 15 minutes for questions. I would like to open it up to the floor. If you could approach the microphone that is in the center of the room to ask your question, I think that would be great.

DR. FRONGILLO: I wanted to raise an issue for comment from the panel that in a way is parallel to what Sanders just talked about. Alisha and Craig before framed some questions around determinants. How much of the variation in food insecurity is explained by determinants, which determinants are the most important, what are the relative magnitudes of those? It seems to be me that that

is one way of looking at the question, where the focus is on the determinants. A different question is who is food insecure, which families, and which children are food insecure, and why are they food insecure?

The reason I am raising this is because I think that some of the methodology we use is driving some of the answers that we get because some the work that has been done - Christine Olson was the lead author on a paper that ERS published and it was in an extinct journal Family and Economic Review about 1998, where we used a classification regression trees method. What it showed was that it was a combination of factors that mattered in complex ways. For example, having a little bit of savings linked with what your food expenditures were with whether or not you were solely reliant on food stamps for your food expenditures or whether you had some extra income for food. Those worked together in complex ways.

When you look at it that way, you find out that it is the combination of different factors that really matters. Regression methods don't really deal with that very well, and other methods might do a better job. I was curious what your reaction is.

DR. GUNDERSEN: Thank you for the question, Ed. Even though I am an economist, I do really think that there are lots of really need things out there that help us

understand these things. I guess I will slightly disagree with you about there are regression methods that could address just the issue you are talking about. There are tools that other social scientists could use to look at that. I do looking at these factors in combination with one another really is important whatever methods that we use to elucidate this. That is a good point.

DR. KIRKPATRICK: My question is sort of along the same theme in terms of a combination of factors. Craig, your question about why are some low income households food secure and higher income households are food insecure. Is it because income is such an imperfect measure of actual household resources? It doesn't capture housing costs or other basic needs. It doesn't capture debt, all of that kind of stuff.

DR. GUNDERSEN: Right. I agree that looking at these alternative measures really would be a good way to try to elucidate some of these things. That is what was found like the paper that Sandy talked about by Tara Watson and others. It did show that that makes a difference.

DR. FRANK: I had two sort of joined medical thoughts. One was in addressing the issue of why disability contributes to food insecurity. The issue of special dietary needs hasn't been raised, but certainly in children and also like in adults with diabetes, the costs

of the recommended diet are much higher, and children with food allergies - even simple stuff like that. I don't know how you would capture in national surveys, but I raise it. I am old enough to remember when you could write prescriptions for higher food stamp benefits for an adult with diabetes. That has long since gone. That was in recognition that a diabetic diet is more expensive.

The flip side of that is the issue that Dr. Gundersen raised about knowing how to get by. I think getting by, meaning nobody in the family experiences discomfort, is very different than everybody in the family getting enough of the right foods for health. I think that is much harder to measure. There is the Healthy Eating Index, which is kind of complicated, but I guess that linkage between well we are not hungry, but is what our Healthy Eating Index, or some other physiologic measure of healthful diet. It is another sort of huge missing piece in the story.

DR. GUNDERSEN: So two points. I think the point you raised about SNAP benefits is an important one. We always talked about SNAP and the different changes to it. That is one possibility. Along those lines when talking about food access, it is not only special persons with disabilities who may need special diets, it is persons with disabilities may also face mobility issues which prevent

them from getting to the food store on a regular basis and maybe providing some sort of supplement along those lines to help out that, so excellent points. In terms of the healthy eating, that would be great. I should clarify. I made my comment about persons who are poor and food secure as more of praise for them. I know it is extraordinarily difficult to be poor and be able to still be food secure is a really difficult issue. Clearly, there are other measures to look at it. I don't mean to diminish the problems facing those who are poor.

DR. KORENMAN: I wanted to jump in and just ask something that occurred to me as I was reviewing some of this literature. Have people looked at the relationship between health insurance and food security, like across state kinds of studies?

DR. ALAIMO: I have done research on that with food insufficiency back before we had the hunger measure, and families who did not have health insurance were twice as likely to be food insufficient. While I have the mic, I appreciated your excellent presentation. I hoping that we can challenge ourselves a little bit today with this conversation. I was a little saddened coming to this meeting that the first meeting that we had here in the National Academy of Sciences was 20 years ago, and the food insecurity, we have been able to measure it. Thank you,

Steve, for your remarks this morning. You are one of my heroes. We have been able to measure food insecurity, but we haven't really done much to change it. In fact, it is getting worse.

When we think about these determinants of food insecurity, I think it is important to really broaden our perspective and kind of think a little bit bigger in terms of what are the fundamental causes of poverty in the U.S. We can put up that these demographic characteristics that are associated with poverty, but why is it that it is more prevalent among African-American and Hispanic households. We don't talk about the root causes of that, things like racism and the economic structure of how we have put together the economics of our society. I would like us to when we talk about the determinants maybe broaden the perspective for those fundamental root causes.

Also, I have to challenge you a little bit, Craig, on this, that it is really, really hard to change income, but we see here that 80 percent of food insecure households are working. Isn't that the bottom line that they are not making enough? Those low wages just frankly aren't enough. Maybe that is what we need to do is figure out how we can raise income among food insecure households collectively as a society. That is the main issue and that is what we need to do to address it.

In terms of financial management skills, as you said, I think you said that very, very well, it is really hard to manage a budget when you just don't have enough. Working on teaching people how to manage this very, very small amount of money, I think it is still an open question. We need more qualitative research on those types of coping, to be able to say for sure that it is a determinant, that financial management skills is a cause of food insecurity.

DR. GUNDERSEN: Without a doubt, we should try to increase people's income. The reason I made that comment is that it is hard to do that. I mean, we have been trying to do that for a long time. That is a great thing to try to do, but it is perhaps beyond the scope of what the food insecurity literature is addressing in this context, but it is definitely an important issue. With respect to financial management skills, there is a debate in the literature how much really you can teach people financial management skills. There is some evidence that instruction doesn't help all that much. It is almost like some people seem to have those skills or people don't for whatever reason. It is definitely something we have to look at more to see how it can be done better.

PARTICIPANT: Craig, in one of your slides, you pointed out that having an older child was an important

factor. It leads me to wonder how much work has been done to dissect the parent protective defect relative to what we know as the child gets older is an increasing caloric need that actually puts them at a level where their caloric requirement are greater than the adults in the household and how that changes. Is there is a significantly different interaction for preschool children and younger children and how does that really change. Does it change differently in different subpopulations that we are dealing with?

DR. GUNDERSEN: That's a good idea, and there has not been enough work done on this, so I think that is probably part of the reason for why older children do have higher levels of food insecurity than those who are younger.

DR. PARRISH: We have time for one more question.

DR. BERG: One point on the official poverty rate, whether it indicates that the war on poverty didn't work. As you know, between 1960 and 1974, the poverty rate was cut in half. So, extending the line through the Reagan Era and the Bush Era that is like saying when we added penicillin, disease went away. We took away penicillin and now disease is at the same level. We have a separate discussion of that. I do think that underreporting is a key issue when you look at the American Community Survey

and SNAP participation basically underreports it by 30 percent. Your point, Sanders, about the questions there being similar to the compliance questions. I think it is even worse when you are looking at the low food security questions.

Again, I am going to defend the measures Churchill said about democracy, "It is the best system, except all others." You are really asking questions that a child Welfare worker would ask, and if you answer then negatively, you lose your children. So that is a lot more severe consequence than losing your benefits. I want to actually echo Katherine's comments. I think we have done some work. I know Mark has done some work comparing us to Canada. I really think we need some significant work comparing us to societies that have essentially eliminated hunger and food insecurity. I briefly went to Scandinavia this fall and summer mostly for fun, but did a little work. There is no question if you read their literature; you look at their popular culture from the nineteenth century, you look at their immigration patterns, they had massive levels of poverty and food insecurity and hunger and they essentially have none today.

There are plenty of people in households in Scandinavia who don't budget well, and they are not hungry. I suggest the preponderance of evidence is if the vast

majority of meaningful factors are unemployment and poverty, we ought to spend more of our collective efforts not writing that "Oh, the federal government of the United States of America can't." I am not saying that you are saying this, but the assumptions are -- since we can't really affect wages, since we can't really affect poverty, then the best we can do is look at these underlying microdata about who is coping better, when in fact, I would make the argument we can address poverty and income too.

DR. KORENMAN: It's the Swedes who don't manage their money well. The Norwegians do manage their money well. I just also want to make a point that that charter went back to 1960.

DR. BERG: Right, but between 1960 and 1974, the poverty rate did cut in half. And 16 million Americans did leave poverty and enter the middle class.

DR. KOREMAN: Since then, there has been little progress according one measure and tremendous progress according to the other.

DR. PARISH: Thank you all very much, and we can take a 15 minute break at this point.

(Brief recess)

**Session 2: Contextual Factors Linked to Child  
Food Insecurity and Hunger, Moderator Susan Parish,  
Brandeis University**

DR. PARISH: Scott Allard, School of Social Service Administration at the University of Chicago. He is also a research associate of the Population Research Center at Newark and the University of Chicago. Allard is also director of the Urban Network at the University Chicago and a nonresident senior fellow at the Brookings Institution's Metropolitan Policy Program and research affiliate of the National Poverty Center at the University of Michigan and the Institute for Research on Poverty at the University of Wisconsin, Madison. His primary areas of research expertise are urban poverty, safety net utilization and the spatial accessibility of governmental and nongovernmental safety net programs. He earned his PhD in political science from the University of Michigan.

He will be followed by our first discussant, Dr. Lucia Kaiser who is a cooperative extensive specialist in the Department of Nutrition at the University of California, Davis. Her outreach efforts include developing nutrition education materials for use through the Expanded Food and Nutrition Education Program and the SNAP Nutrition Education Program. She also administered a USDA Economic Research Service Ridge Program, which is a small grants program that you all are very familiar with to examine the impact of food assistance on nutrition. Her research interests include examining the impact of acculturation and

food security on childhood obesity among Latinos and developing tools to evaluate nutrition education. She earned her PhD in nutrition from the University of California, Davis.

Our second discussant in this session is Bruce Weber who is a Professor of Agricultural and Resource Economics, Extension Economics, and economist, and director of the Rural Studies Program at Oregon State. He was codirector of the RUPRI Rural Poverty Research Center from 2002 to 2005. His current research projects focus on rural urban interdependence, persistent rural poverty and hunger in rural areas, rural community resilience in the face of natural disasters, the impacts of federal policies on rural communities and contextual factors affecting the effectiveness of the social safety net. He earned his PhD in agricultural economics from the University of Wisconsin. Please join me in welcoming all three of them.

**Speaker: Scott Allard, University of Chicago**

DR. ALLARD: Thank you for the opportunity to speak today. Thanks for the invitation. It has been a nice chance for me to learn a new literature in some ways. I am like Sanders and new to the field of food assistance and food security research. I think the work I have done

on place and poverty and social services and safety and utilization is quite relevant. I will bring that in as you will see from the conversation today. If you have suggestions, questions or you would like copies of the slides, feel free to email me at some point, and I am happy to send them to you. Also, I know we would all be cheering for Michigan tonight in the national championship game. We won't have to do hale the victor right now; we will do it at the break.

This is how the presentation will proceed. I am going to focus on some key questions and tasks. I will maybe ask the question why do we think about place or why should we think about place in the context of food security. I will quickly go over some key terms and definitions and then really spend a lot of time talking about possible causal pathways, that place affects, or that place might matter. I will review the literature a little bit. I am taking a page from Craig's approach, not going into detail to cite lots of studies, but maybe kind of giving you a feel for what the literature as a whole looks like. I will then spend some time at the end talking about methodological challenges, prioritizing next steps and thinking about some discussion questions that might seed our conversations afterwards.

The key task that I was asked to tackle in this paper and in this presentation are basically to think about how place and contextual factors relate to food security and hunger. You could think about this as a supply and demand question if you are an economist. At some point, I will try to grapple a little bit with whether food security is the right outcome variable for thinking about place effects. I think there is room to ask that question, actually, and I think we should be asking that question. I think some of the open questions that Craig presented. I think you find them implicit or explicit here in my conversation.

When I am thinking about place and contextual factors, I mean both about direct, but also some indirect ways that they might matter as well. One note, in addition to folks who care about literature, I will spend a lot of time thinking about what we know and what we don't know and then prioritizing research efforts moving forward. In the paper, I will talk about research that might have some promising actionable results or implications, but I won't talk about that in the presentation. I also should note that most of the studies don't engage child food security or insecurity that talks about place effects. That is part of the limitation as stated. Part of it is a sample size issue. Part of it is a data limitation. Part of it is

just how we have conceptualized frankly. There is a lot of green out there, so to speak.

Why should we think about place and why place matters. It is a conversation we have in the poverty literature, but those of you familiar with the poverty literature know that it is actually pretty difficult to pin down place effects and to think about what is distinctly a place effect as opposed to maybe a self-selection issue. We do know that food behavior and food outcomes are very spatial. We don't maybe know that as well as we could know it, but there is reason to believe that these are spatially varied phenomenon and that spatial correlations may have a causal component to them. We know that food resources and food assistance are located and imbedded in space. We know where you live affects the kind of grocery stores that are near you. Where you live broadly affects the kind of food assistance programs you might have access to.

One powerful reason why we are thinking about place perhaps is that literature on food deserts has become quite prevalent. In fact, every time I said to somebody in the last few weeks, Oh, I am going to go do a presentation on place and food security, food desert was like the first thing someone said. It is actually not something that scholars understand. It is actually imbedded in our common wisdom. I think it has shaped our agendas. It has

certainly shaped how Chicago is thinking about food policy and about food security. That may or may not be a good thing.

I think understand place effects could mean a number of things. It could mean an improved understanding of household and child food security. If you go back around the same time that the food security measure was developed, there was this discussion, I don't know how persistent it has been, about community food security measures. There is actually a tool that USCARS has developed, and essentially that community food security concept is what you see here. If we understand how communities are food secure, we might actually establish some more long-term household and child food security with the idea that food assistance programs are short-term solutions to these issues.

I think understanding place could give us better insight into how individuals and households cope, give us insight into actually better model estimates. If you are an economist, you might care about having a better model estimate. If you are a qualitative economist, you might care about having a better - that is a joke. When you think about how we might better allocate our resources, public and private, if we understand how place matters to food security and food outcomes in households. Also, I

think there is a lot of space for innovative solutions so to speak. I think better understanding conceptually and empirically of place might help us develop better interventions and maybe more exciting and dynamic solutions.

Key terms and definitions at the outset, as Craig and others have noted. When I am thinking about food security, it is from the CPS food security supplement and the USDA Guidelines. Most of the studies don't have the full 18 item battery of questions drawing a sub-sample, but when studies are talking about food security, I actually feel like they are doing a better job, and they are not using like one question items or things like that. They are doing a decent job given how hard it is to fit 18 questions into a survey.

Place and distance: Again, I could probably do a whole hour on this slide itself, but place and distance are conceived in a lot of different ways. Some studies focus on state differences or county differences. Some focus on municipal differences. Most of the research actually is site specific. So you will find a study of New Orleans and then a study of New York City, and they don't talk to each other, but the unit that we are focusing on sometimes is a municipality. A lot of the research is using sensitive tracks as proxies for neighborhoods or block groups, so

that is very common. We can talk about why that is a good thing or why that might not be a good thing.

When we think about distance, often times studies are looking Euclidian or straight line distances, which are nice and easy to calculate in software packages, but more sophisticated studies are able to use commuting time and commuting mode information to kind of figure out how people fit into a grid and how long it takes to walk or drive or take a bus somewhere. That is better in some ways than straight distance, but actually straight distance is still pretty good. We shouldn't just dismiss it.

Some studies think about different types of buffers or catchment areas, and that is important. It is not just maybe how an individual can get to a place, but maybe you want to think about what the population around a store or around a food pantry looks like. That would be an interesting set of questions as well.

When we think about food resources, there are a number of different things that you could look at. Most of the research looks at the first bullet, supermarkets, grocery stores, convenience and specialty stores. We are all familiar with the proprietary data that people use to locate stores in their communities. There is restaurant and fast food data, although in this literature not as much of the fast food restaurant literature has focused on food

security outcomes as on the food store data. Then you can also think about SNAP offices, food pantries, soup kitchens, social service organizations and informal social support as kind of being food resources or potential food resources that exist in place.

Then what is access ultimately? This turns out to be the biggest open question. We can talk about distance, but we actually don't have a sense of what adequate access is. We don't know whether it is good to be a half mile from a grocery store or six tenths of a mile from a grocery store, or a mile. We don't have a sense of what is adequate or what is a reasonable commute. We can look at self-reports about how people get to the grocery store, how far they travel and make some guesses, but the literature itself isn't often referent to those self-reported data. You could think about affordability and eligibility as shaping distance or place-based measures of access, and I think those are important considerations.

You could think about nutritious content or how well a diet or a bundle of goods fits the recommended daily allowances. That is important. There is a heavy normative component here too about what should be people have versus what is adequate, and they could be two different conversations. This is not just a measurement question,

there is actually kind of a normative discussion here as well and it focuses on quality and things like that.

I focus on a paper and in my presentation on four possible pathways through which place matters. These aren't strict boundaries. They spill over, they relate to each other. They actually see that there are kind of individual level factors that come into play here. It is a little bit messy, but I think these are useful organizing principles certainly conceptually.

You find that different studies tend to emphasize one of these areas. The really good work can do many -- the good studies out there. Again, I think these are elements of the community food security tool that USDA and the ERS have developed. As we think about pathways, I would encourage us to take some time to think about the role that self-selection plays, how people get to where they are, and how maybe spatial measures of food access or food resources can help resolve of the endogeneity issues that emerge from self-selection to place in the neighborhoods or in the program participation.

I am going to start with what is probably the single most prominent component of the literature and probably the dominant way that scholars and policy makers and advocates think about place and food security. This is what you call spatial access to food retailers, access to

community food resources, the food resource infrastructure or food deserts, depending on what label you prefer.

There are lots of reasons to be concerned about spatial access to food retailers. One, the closer you are to a store, the lower your commute costs, the lower your time costs, and that matters. There is a sense that supermarkets are better than grocery stores and other types of stores in that they are more affordable, they have more options. They have better hours of operation. They have healthier food.

Having access to certain types of food stores is thought to matter more than other types of food stores. Again, we think of community food security as being a long-term solution to food insecurity with food assistance perhaps being a short-term way to help families make ends meet. As I noted, food retailer data is kind of a list of usual suspects when you look at the literature, Dun and Bradstreet, Info USA. There is SNAP retailer data available from the USDA.

One of the takeaways is you look at this, and this won't surprise any of you who have worked with it is that the data is thin on detail. It is really inconsistent between data sets. It isn't always comprehensive. Some of the really interesting studies have compared these food

retailer data bases -- findings of 30 percent are missing from one, as opposed to another, or what have you.

One of the issues when you are doing this work is that the source of data you use to model food access actually does matter quite a bit. It takes a lot of work to get this data clean. I am doing some stuff. I have been really lucky to receive support from IRP and from University of Kentucky to do some work on food access. We are grappling with some of these data issues as I speak.

The other kind of key thing to note as we think about this literature before I start to dive into findings, one of the key features, is that there is varied operationalization of spatial accessibility. There is no agreement about what is adequate or inadequate, but there is a lot of agreement on what a good measure is. There is a lot of variation in how people measure things. As I noted before, reasonable commutes versus just straight line distance. There is a bunch of studies that look at what is located in your census tract or your zip code, which, for my taste, is actually probably a little too narrow of a way of approaching it. Given the limitations, that might be the best you have.

There is one interesting study by Sparks, Lead, and Banya, folks from out West, and I forget what journal it was in. They develop a number of different measures in

Portland and compare how correlated they are. One of the takeaways I would say is that you can have a lot of different measures. They might not, across studies, line up very well, but actually I think different measures within the same community actually are pretty highly correlated. Depending on the questions we are asking, some of this variation might not matter as much, but it certainly makes it difficult to compare New York to New Orleans or Chicago if that is a question that you are interested in.

A lot variation - I am happy to say a little bit more about that in Q&A.

A large number of studies find race and class differences in access to food retailers. Much of this is distance to the nearest supermarket or the average distance to the nearest three supermarkets, or the number of stores in your census track or your zip code. Marie Gallagher, this is a Chicago study. It is often cited, and I am a Chicago guy, so I want to represent. This is a common kind of magnitude of finding where in her work, she found that African-American neighborhoods are 40 percent farther from the nearest chain grocery store than white neighborhoods. This is very common in a magnitude of effects sizes between black and white neighborhoods, poor and non-poor neighborhoods.

A large number of studies have found comparable results. I would not say it is a recent set of studies, but increasingly, there are studies that show small or no differences by race and class. The ERS has a really nice report on this. It is actually fun to connect with ERS folks who do all of the great research on this topic. I think that report puts this literature in a good light, in that there is some evidence, but there is also evidence with kind of mixed results. There are some studies that find low income and minority communities have greater access to supermarkets. There is also evidence in some studies that non-chain grocery stores, or specialty stores, are more accessible to low-income and minority communities, particularly ethnic groceries and things like that.

So this again pushes you to think about what is access, what do we mean by it? What kind of stores are we looking for? Also, in some of the mix of findings is that we are comparing Chicago to Detroit to Memphis. Things might operate the same in all those three places. Judi has a study that found that only very long distances to stores was related to food insecurity. Very few of these studies are able to connect access measures to food security outcomes, in part because most of our food security problems are national in scope. The ERS report that has some original analysis in it, they have looked at this as

well in that report. Most of the studies are basically, and I am sympathetic because some of my work is like this too, this neighborhood has less access than this neighborhood. There is no sense on how it affects behavior, take-up or diet. Judi has a paper that shows longer distances matter.

One thing to keep in mind is that we make often assumptions about distance and mode of commuting and type of store. The vast majority of households are within one mile of a supermarket. Most poor households use a car to get to the grocery store, whether it is their own car or a borrowed car. This is true of food pantries as well, especially outside of central city areas. One of the things I would encourage us to think about is the assumptions we make that all people in poor neighborhoods are poor, that all people in poor neighborhoods don't have a car, and that people can only walk to the grocery store. I think some of these assumptions that are imbedded in this literature probably could be challenged a little bit better. When we do, you might get a slightly different take on this.

I think overall, there is evidence that there are gaps and mismatches that are apparent. You don't have to spend too much time on the south side of Chicago or downtown Detroit to see that. You also don't have to spend

too much time in rural communities to get a feel for food desert issues and the long commutes that families have to make.

Increasingly as poverty in the suburbs has increased, tomorrow I am lucky enough to speak in Chicago on suburban poverty to a group of foundation folks. As there are more poor people in suburbs now than in cities, this issue of food access and food security becomes a really big unknown as a lot of focus is on urban centers or rural places. Hardly any work has looked at suburban areas.

Areas that are deeply segregated by race and class often have the biggest gaps or mismatch problems as well. That does not surprise us I wouldn't imagine. Again, a mix of approaches, a mix of data, and a mix of sites lead to a mix of results. We should not be surprised by that. I think there is evidence to suggest this is something to be concerned about and something that does really matter to families. Again, we are not often linking this to food security questions. We are making assumptions about poverty rates, what it means to be in a high poverty track. A lot of this is cross-sectional, so causality becomes tricky. A lot of this, it looks like asset maps, which are really cool, but there aren't connections to behavior.

One other point I would make is something that is statistically significant in this literature. We have to back out and wonder whether it is substantively significant. So 40 percent difference in access in Chicago between black and white neighborhoods is a difference between being six-tenths of a mile to the nearest supermarket and four-tenths of a mile to the nearest supermarket.

Now, two-tenths of a mile, is that a meaningful distance? If you are disabled, that actually could be a huge distance and you don't have access to transportation resources. It might not be for a lot of other people. One thing to think about -- are these significant differences we observed really meaningful in terms of how they play out on the ground. I think that is not a conversation that the literature is having as much as it should.

The next steps in this kind of food retailer access literature, we need to think about how we can improve measurement and set better conventions around how you should model access. I think there is room to be a little bit more prescriptive in this, and given the ability of GIS Software, we should be able to do better across the board. I think it is important to link access to individual and household outcomes. This is a data issue I will talk about in a second. I think there are important

at-risk group areas that we need to focus on and maybe think of this as a phenomenon that matters, but maybe it matters more acutely in certain places.

I am not going to talk about safety net program utilization; that comes later. I am going to talk about what safety net programs and safety net providers might mean or matter. I have done work on access to safety net programs and find that there are a lot mismatches and gaps in the location of providers and the location of people in need. I think that is probably one of the reasons I am here today to talk. Safety net assistance matters because it increases household food budgets. We know that social service programs can do a lot of things to help improve well-being and work earnings.

We know that social service programs provide all kinds of emergency assistance that help families navigate job loss or periods where they might risk becoming food insecure. We know that food pantries and religious congregations are first responders. I was at a faith based organization in the suburbs of Chicago last week. They get 75,000 people a month to their food pantry. They drive. It is crazy how big they are and how much work they do. They don't just do food. They do legal aid. They do employment. They do all kinds of other things.

Having that organization in your community is going to matter for all kind reasons potentially, as opposed to a place that doesn't have that kind of asset or resource. We think, as I have said, that proximity to assistance programs is related to increased take-up. If you think that it is then it should be related to food security. You can decide whether you think this is a direct or indirect pathway.

I think also there should be interest in how people bundle together different services and programs. If you are in a community where there are many different providers you can draw upon, you might be in a better off position than someone who might only have a small church food pantry and nothing else. You can think about how people bundle together public and private sources of support.

There is a discussion in the literature that density of programs can lead to greater collaboration among community-based organization. This isn't just limited to safety net providers, but to community organizations broadly. There is some sense that when you have a density or you reach some kind of threshold or tipping point of supply that advocacy and intervention or referrals and awareness is greater, and households are better served.

There is also reason to think that formal child care centers and access to formal childcare matters, especially as it relates to what kids eat during the course of a day. There is probably room to think about that.

There are a couple nice papers by Rebecca Kissane, Neckerman and others, that help us think about how people navigate place in the context of safety net programs. This is really important. It relates to kind of the straight line distance versus street grid. Both of these studies talk about the built environment and about how people engage their environment and how there are concerns about stigma. I might not go to a food pantry in my neighborhood because I don't want to have people see me in line. There might be concerns about safety and violence or about issues of race and ethnicity. I might not go into this neighborhood because people are different from me or because I might tread into a different gang territory. This is an issue that we deal with in Chicago quite a bit.

There are a number of ways that we would want to be more sophisticated, particularly as we think about qualitative studies to help us learn about conceptual pathways. There is not a ton of work that is focused on safety net program presence or the role of providers. Judi and Rachel have a nice study that looks at access to food assistance and finds this positively related to food

security. There is increasing work that has kind of solved this SNAP and food insecurity correlation in cross sections. There is reason to think that if you get people hooked up with food assistance, they will do better over time.

Not very much work is brought in food pantries, but food pantries are a really big player in a lot of areas of high poverty or individuals with persistent detachment from the labor market. In my work, I found that low income neighborhoods -- this finding isn't any better than the food desert findings, so just to be clear -- you have about half as much access to emergency assistance food providers. That is consistent with some of the supermarket access research.

Here I think the empirical research lags behind what people on the ground know. If you go talk to someone who is running a grocery store in a poor neighborhood or you go talk to a food pantry in a low income area, you will hear a different story that isn't really present in the literature. I think that our research is lagging behind how the spatial location of food programs or food assistance programs matters. I think there is some promising use of SNAP administrative data to think about what people are buying and where they are buying it. That seems pretty useful here.

Ultimately, I think as you can guess, we need to think about how receipt and bundling assistance shapes food budgets and food shopping behaviors, how we integrate social service programs more explicitly, and how we again and again try to connect up food security to all of this. There is a lot of work on economic and social context. Store locations are driven by supply and demand, so we should be thinking about economic conditions and how they shape what is located where.

Although we don't actually have a very good understanding of why food deserts, if they do exist, why they exist. There is an interest in food prices and cost of living measures. There is some interest in informal social support. I think that is promising. There is increasing interest in civic structure and social capital. These conditions, again, where stronger, a civic community might lead to better health outcomes or better food outcomes.

We don't have local level data on all of these, so the literature here is going to focus mostly on economic issues. We know that prices tend to be lower in supermarkets and super centers. We know that some studies are finding ethnic grocery stores provided affordable healthy food options in low income neighborhoods, but this is not something that is widely accessible to all low

income neighborhoods. There is evidence that unemployment rates, wage rates, things like that, affect food security. Interesting enough, I just read a study that perceptions of civic structure strength, so how strong do you think the community organizations around you are is related positively to food security and you can decide what you make of that. I think it is suggestive.

There is good theory in empirical work to build on here. One trick is a lot of these economic and social factors are highly correlated with each other and with other things that we care about. Teasing out what matters is difficult when you start to throw things in the models. I think the next steps are what creates gaps and mismatches in access. Why do food deserts exist? Can we connect prices and price variation by place to shopping behavior? Can we model effects of context over time, and can we give greater attention to civic community and social capital that might matter.

There are some other political factors that matter. I am going to skip over this a little bit, because this is a relatively under-developed area. But you can think that there are important political and policy variables that might matter. My recommendation is that we need to think about this, identify some key causal pathways, work on developing better measures and connect to

food security; it is kind of the same story. There are some promising ideas here to think about how policy varies at the state and local level and how political variables might matter as well, political conditions.

What don't we know? We actually don't know very much about how food security varies by place. This to me seems to be the first order of questions that we have to answer. We know a lot about how poverty varies by place, but our data doesn't allow us to do this very well at this point. We can identify food deserts, but we don't always know why they exist, although I have been talking to a doctoral student in Chicago who has been doing a history of grocery stores on the south side. There is probably greater work in the pipeline on this that will be coming out. I think this is question that is relatively open.

We don't have a robust theory of place effects and food behavior. A lot of it is association. We haven't thought through very carefully about causal mechanisms. I think this is in the spirit of some of the things that Craig said. We don't know what adequate access means. We don't know much about how access shifts over time and how those shifts are related to food outcomes. There is a lot we don't know in this area, which might be frustrating, but actually I think that it means that there is a lot of work

to be done. If you are thinking about research agendas, there is a lot of opportunity here.

We have some serious data limitations, both in the grocery store data, but also in the individual household level data. I think it would be excellent if we could commit resources to dropping in the 18 question items in the panel surveys, where we would be able to get geographic coverage. I know that is a great scholarly request. At Michigan, we have been doing a panel survey in Detroit, and getting one question onto the survey is really hard if you don't have money. If we would have 20,000 or 25,000 dollars, we could have added a lot of questions.

I think the processes are different in urban, rural and suburban areas, and so we can't just assume that our models and our theories work well in all places. I think there are some endogeneity and self-selection issues that are present as we think about individual outcomes or household outcomes. Some of these place variables might help us as instruments do better work there.

Moving forward, my priorities kind follow directly from everything you have heard me say. We need to think about how we link data on place to different food behaviors. We need to think about how people buy food, where they buy it and for how much and connect that up to the stores and the environment around them, if we are

really good at understanding the relationship between place and food security. I think we need to do more to explore natural experiments and behavioral economic experiments. I think there is some stuff out there, some low-hanging fruit, that we could get in the field tomorrow that would allow us. I think there is a lot of opportunity here to be creative, and I would encourage us as a group to think about that.

Also, increasingly as technology is able to scrape data and pull data together from different and unique places, there might be some opportunities to find new sources of data and new measures that wouldn't require us to have panel surveys or that would allow us to get maybe 80 percent of the answer with 20 percent of the investment to use consultant-speak.

If you don't have questions based on my comments and the illustrative comments of my distinguished colleagues, I have prepared some questions for discussion, which we might throw back up at the end. Thank you.

**Discussant: Lucia Kaiser, UC Davis**

DR. KAISER: It is a great pleasure to be here. I am from California, and I noticed all of the cherry blossoms and all of the hype about this. I wanted to just

say that there are cherry blossoms that were in bloom in California at the end of February, so place really does matter. Today, I am going to ask a question and just raise it as place the silver bullet -- probably not, but I am going to add some thoughts on that topic.

An overview of what I will cover today is first I will revisit the causal pathway and add a few points there. Take a closer look at food deserts and again present some other data that I thought was very interesting on this topic. Finally, I will add some thoughts of my own on reaching the hard to reach. I think you should understand too that from my background I have been working for almost 30 years with Latino populations in California and Mexico, and so a lot of the ways I see and approach some of the issues today are with some of our immigrant populations in mind.

Again, Dr. Allard described four causal pathways that I think is a very good framework for looking at this issue. He mentioned first the spatial proximity to food retailers. In this area, I would encourage in our opportunities to fund more research that can combine the GIS data with other measures and perceptions of proximity, but mixed methods to study this issue. I will give you some examples of that in a few minutes. He also touched on

the importance of the safety net programs and the proximity and density of these programs to people.

I think if there is a way to a couple some of the process of where you apply or how you apply from how you get those services. That is very important particularly in our immigrant population with eligible family members. They are many barriers linguistically. There are trust barriers to overcome to the long applications to get on some of those programs. Those are often managed by, or can be managed by, community organizations that help lower those barriers, but that may be a different place from where you received the services. That is just another thought on looking at how people access programs.

In the political and policy arena, I am aware in California of a lot of interest in looking at policy issues, local policy and how that affects local access issues. I think there are many issues related to our food assistance programs and the need to mine that as another way of looking at changes in those programs and how they affect local access and local food availability issues.

Finally in the area that Dr. Allard mentioned was food prices and economic conditions. I think we all in preparation for this discussion talked about how important this area really is. In the area for immigrant populations, seasonality is one that I think we haven't

really talked too much about today. Monthly fluctuations in income are important too. Seasonal fluctuations can be very important.

As some of the qualitative work that I have done, these fluctuations may mean that there is an abundance of food at certain times and maybe not the best kind of foods, and other times it is very different. That could affect the way children are nourished and parenting strategies in a lot of other ways. I think that is another whole area that we need to be mindful of, particularly when we are looking at some of our farm worker populations, but not just them. There are many others that are working in seasonal work.

Could there be too much hype about food deserts? It is a provocative question, and I think that Dr. Allard definitely presented a very sound body of research on food deserts. There is no question that excellent research in this area has been done. There have been few studies really that have compared perceived and objective measures to grocery stores and supermarkets. I think from local perspective, this is very important. This also opens the door to those mixed methods types of studies that we need. Because to go from the research to the strategies that will help us prevent food insecurity, we need to know how people view the distance to stores for example.

In a study conducted among 20 low income housing projects in the Boston, Massachusetts, and I will talk about this one in another slide as well, reported a mismatch of 31 percent between actual measured distance by GIS and the perception that the supermarket was within walking distance as obtained by survey data. It could be that those two different approaches tap into different constructs or they are measured in an individual place-based characteristic that are important. This is something that ought to queue us into the fact that GIS data alone, although very interesting data, needs to be augmented from another point of view.

This slide is from that same study, Caspi, et al, published in Social Science and Medicine, and it looked at the relationship of measured and perceived distance to the supermarket. The outcome was not food security here. It was servings of fruits and vegetables. Greater food insecurity in this study was related to lower intake of fruits and vegetables. That was established in this study. What they found was the measured distance from the housing sites to the supermarket was not significantly related to servings of fruits and vegetables in this study, but the perception that the supermarket was within walking distance actually was very much related to it. This was after controlling for food insecurity, income, age, gender and

country of origin. Again, I think that points to the interest of studies that can combine mixed methods.

This slide is actually from some data that we collected in California among low income women that were living in four counties. It is a small study, but I think sometimes case studies can help us look at things in a different way. What we did here was we collected 24-hour recalls in food receipts.

We looked at the quality of the diet based on the Healthy Eating Index. We cross-walked that with the diet cost based on food receipts that were tagged to those same foods eaten over the same period of time. We had four different groups. This is kind of a crude analysis. It answers some questions that I think Dr. Gundersen was talking about earlier today about some of the other factors related to choice.

We had a group that was a high quality diet showed in green with the low cost diet. This is the kind of group that we are working for to try to work with our low-income populations and our SNAP-Ed and our EFNEP programs. We try to move people to that color. We also looked people on high quality diets shown in the purple, but this is a high cost diet, not so good.

Yellow is the low-quality diet with the low cost, and that is not good either because it is low quality, then

the low-quality and cost, but it costs too much; it is high. Actually, food insecurity, I measured by the 18 item tool was not significantly different among these groups of women in these four different groups. There was a tendency for the green group to be somewhat higher on food security. The yellow group up here, the low cost and the low-quality diet had higher scores on food security.

What was interesting is that we also have a lot of measures. These were all self-reported. We didn't have a GIS measure of neighborhood access issues. Were the stores affordable? Did they have the foods that you wanted to buy? Did you take a car? Did you shop at a grocery store? Only shown here are a couple of these. Was the store easy to reach? Does it sell healthy foods? None of the neighborhood-type of environment issues from their perceptions was actually related to which group they fell into in the end.

What was related were a couple of attitudinal factors, the importance of having a healthy diet in the foods you choose? Those were much higher under both groups that had the high quality diet compared to the lower quality group. As was the factor, do you use a nutrition facts label to make choices? Even in the absence of some of these neighborhood factors in low income populations,

there are educational and motivational factors that we need to consider as well.

Can food assistance policies change the local availability of healthy foods? We have heard about SNAP today, but we haven't talked much about WIC. This of course is a great passion of mine, the WIC program, and I am very interested in finding out how changes in the WIC food packages that were revised and implemented in 2009 what kind of impact that could have on local food availability.

This study was published in Journal of the Academy of Nutrition Dietetics. I think it was funded by ERS. It looked at WIC stores and non-WIC stores before implementation of the revised WIC food packages which brought online vouchers to purchase fruits and vegetables as well as whole grains and low fat milk products. They looked at it post-implementation as well.

What they found was that WIC stores showed greater improvement in availability of healthy foods after implementation of the WIC food packages. There were some changes in the stores that were non-WIC, probably because there were providers going into those areas or suppliers going into the area of whole grain bread. There was a much greater effect on the WIC vendors in terms of healthy supplies of foods that they have at their stores. This was

actually interesting that the stores that were farther from supermarkets also had a greater effect that was a positive effect on their food supply. It is interesting to see that changes in our food assistance programs can have a local impact on the stores, the variety and the quality of foods that are available.

Now, we might ask, though, there are regulatory challenges, as I understand them, to be able to look at studies, pilot studies, before full roll out. What would we have learned if it had been possible to do this prior to 2009 when the implementation to do a WIC-Plus basically with the new food packages compared to the old.

There are differences very likely between WIC and non-WIC stores and the people that choose to participate as vendors. What would we have learned if we could have done this without a historical control? I realize that there are many regulatory challenges to doing that, but there might be some useful information that we can glean that would help us with the design of our programs.

Reaching the hard to reach: What is the value of community-based participatory research studies in getting to these populations? I currently working on a team led by Chicano Studies Department at UC Davis, The Nino Santos, Familia Sana project, a five year project funded by USDA. It is intervention to prevent childhood obesity. Imbedded

in this we have inserted the 18-item tool. We will be measuring it twice a year over five years, in a very high risk population.

To be able to get into this population, which probably 90 percent of the community are immigrants, and many of them are undocumented, we are working closely with community advisory groups. Our recruiters are lay people from the communities. They have helped us in many ways understand and test our tools for going. This seems a long-term committee to communities. It means building trust to really look at and understand. This is not the full baseline data, but we have about 13 percent that are telling us that they have very low food insecurity. That may change as we get the food sample on board. Only 36 percent are actually food secure.

Based on the fact that some of our interviews go into homes, and there is no furniture, there is nothing in the house. Coming back out, there are trailers in places. We think that the data may be somewhat off from this, but there are severe issues here.

I think that the mixed method studies are very important in being able to understand these place-based issues. I think that pilot studies of innovations in our food assistance programs would be very helpful for us to understand what is going on and certainly to look even with

historical controls. I know that many people are doing this research now before and after implementation. I think that community-based participatory approaches to working with the hard to serve are probably a good avenue. It means long-term commitment, and it may mean new research teams.

In some of the documents that were sent around, I know the question is do you set up centers of excellence? Do you fund different kinds of groups? Well, it may be a mix of both to answer these questions. I think that getting some new research teams where there may be some capacity building on board with longer-term commitments to work in these communities may be one avenue that we want to look at because the people that are really suffering from child hunger are hard to reach.

Finally, some small case studies may be worthwhile to look at possible mechanisms along with the larger panel data studies that you are proposing. I will just end; this is a slide, another study. This is from not one of my research studies, but from American Samoa. That is a relatively small population of people with very high rates of obesity and food insecurity in that population. Even some of these may open up our eyes to mechanisms across many populations that are worth a closer look.

**Discussant: Bruce Weber, Oregon State University**

DR. WEBER: Thank you to the committee for inviting me to this event. What I would like to do in the next 10 minutes is three things. One, to change the question a little, or makes it a little more concrete, this question of place. This is food security across the rural urban continuum. I am going to use the rural urban continuum as a sort of set of places, but you can insert your own places in place of rural and urban to get the sense of why place matters.

The second thing is to suggest a couple of research opportunities along through the dimensions two of the pathways that Scott identified in his talk. Finally, I will end with an argument to include measures of place or indicators of place in the research that you do that involves individuals so that we can understand how place affects individual outcomes. I will have a couple of examples of ways that it should.

To get a little more concrete about place, about how food insecurity varies across place, these are not data, these are very well-developed estimates and well estimated, and estimates of childhood food insecurity, which gives us a pretty accurate sense of how food insecurity varies across the country. If you look at this map, it probably won't surprise you to see high concentrations of childhood food insecurity in the

southwest and in the south and some of the southern counties along the Mississippi River and in Appalachia. What may surprise you is some of the western states that have high levels of child food insecurity in places that at least I wouldn't have anticipated, that don't have particularly high poverty rates that I would have anticipated would have childhood food insecurity.

I think there are some questions here about why these particular places appear to have high child food insecurity. I said that food insecurity and child food insecurity varies across the rural urban continuum. In the top row, you will see all counties. These were data Craig introduced in his talk about the percent of households that are food insecure in all counties, those in food insecure households with children and percent of households with food insecure children. The point of this slide is to demonstrate that it does vary across the rural urban continuum measured in this case by looking at metropolitan and non-metropolitan counties. Rates are higher in non-metropolitan than metropolitan counties across all of these variables.

The places that have the highest food insecurity and the highest child food insecurity are the principle cities of the metropolitan areas. I think an interesting question may be why do these differences exist and what are

the characteristics of these places and the people in these places that explain the differences in food insecurity and child insecurity? I would like to start here by just outlining my view at least on the role of public policy and food insecurity and food security studies to give a sense of how I think place enters into this.

I think the role of policy is to change the economic context so that households can develop their capacities and earn sufficient income so that they are not food insecure. The major player here, of course, is macroeconomic policy, fiscal policy, monetary policy, and the things that affect the ability to earn incomes. Federal and state policy and local policy also make place-specific investments. Investments are usually physical investments or in places, and these affect the opportunities that exist in those places.

In addition to changing the economic context, I think policy also needs to provide a safety net for those for whom the general economic conditions don't allow them to earn enough income to feed themselves. This includes many of the safety net programs that David Ribar will be talking about later, food assistance programs, housing assistance, energy assistance, childcare assistance, all of these things affect the ability of the household to feed

itself, and therefore I think need to be considered as we think about food assistance policy and its impact.

As I mentioned, I am going to look at two specific pathways that Scott mentioned, the economic and social conditions pathway, where as he pointed out, the focus has been on demographics, on poverty, food prices, food access, housing, and energy costs. Many of these studies are cross-sectional and studies of county level data. There are many other studies, of course, that are of household level data. Much of the research that I looked at looked at the cross-sectional county level studies.

I am also going to look at the safety net program pathway, where, again, Scott pointed out most of the attention has been on SNAP participation. The reason to look at these different pathways is that different pathways imply and require different kinds of policies. I mentioned that I am going to suggest a couple of things, just really one or two questions in each of these areas that I believe deserve some attention.

The first relates to economic conditions and how much, if at all, do local economic conditions, including here job opportunities, wage rates, unemployment, housing costs and other things, how much do these affect participation in the programs, particularly food assistance programs. How do the characteristics of the local economic

conditions moderate the effects of the food assistance programs on food insecurity in that household or place. As all of the other speakers have pointed out, answering these questions requires mixed-method research. The household data needs to have geographic identifiers in order to link the household to the economic conditions in which that household lives. I believe answers to these questions would help in program design and in particular government investment decisions.

In looking at the safety net programs, I have just a couple of ideas. In the research that I have done, again, cross-section, and actually household studies, it is not just food costs, it not just incomes that affect household food insecurity, it is also costs as has been pointed out. That does suggest that looking just at the impact of food assistance on food insecurity isn't enough. You need to know if there are other kinds of assistance as well. Also, I think it is important to know about the employment dynamics as opposed to the program dynamics.

The first question is, how do these dynamics vary across the rural urban continuum, and if they do, how are these program and work dynamics affected by personal demographics, local economic conditions and program design. The second idea really here is something that somebody certainly must have done, it is just that I have never run

across it, and I am sort of exposing my ignorance here of what may be out there already.

It seems to me that what I would be interested in seeing just to test the idea that there is a mismatch between programs and food insecurity is just to look at how well-matched geographically are the federal food assistance and emergency program and the food insecurity in particular places. I think that we could certainly start with the estimates that I showed on the map as estimates of food insecurity. I think we also would probably want to do better than that at some point if we were going to seriously look at the difference in places and how matched the programs are that we need.

One of the things about measurement here though I think is important, and I don't have a particular slide on that. It seems like there are two aspects of measurement of economic conditions that are important here. One is we often have good measures of unemployment for example, but we probably don't have good measures of other things like food costs and housing costs and the jobs that are available to the people that are low income people that are needing them. What kinds of jobs are actually available for those folks? We don't have very good measurements of that at the local level. If we are going to have

geographic identifiers, we need better measures of economic conditions that are relevant to food insecurity.

The other thing, of course, is the scope, the geographic scale of these measurements. We have some county level data, but often we do not have very good measure of conditions at the sub-county level which may be more relevant for some of the food insecurity issues that we are looking at. Craig asked the question, "Why are so many poor households food secure." I would like to argue some of the answer to that might be in terms of where they live. What are the economic conditions of the place that they live, not just the characteristics, their personal and household characteristics

One other possible thing which I have been puzzling over for the last couple of years is simulated in part by Parke Wilde's work on the new normal, or a paper he did two years ago at the Allied Social Science Association, I think. Is there is a new normal regarding food assistance program participation since the recession? Has there been a fundamental shift in the way people view these programs so that their entry and exit from these programs is different than historically it has been. If it is different then those people who forecast food assistance programs use the models based on an old set of relationships. We have noticed that people are leaving

SNAP at slower rates. They are staying on longer than they used to. Is that related to their job opportunities and food prices and changes in the policy which encourage that? Or, is more a change in the norms about participation? I think that is an interesting question, which would be important to know for forecasters. Again, mixed-methods research would help in understanding this question. It would be important in designing program as well as in making forecasts.

If I think place is so important, why people haven't looked at place before in policy research. The most common reason is that economists believe that people will move to other places to improve their opportunities, but it is also because changing places is very expensive. Changing places doesn't necessarily reach the people that are there.

I would just close with the observation that even though it is expensive to change places and some people can move to better opportunities, some people will not move, and places shape the outcomes affecting household resources and decisions. In order to develop and implement policies and address food security and food insecurity, we need to understand the spatial context.

DR. PARISH: Thank you very much. I would like to open the floor for questions, if you can just approach the mic and, again, identify yourself before you do your question or your observation.

DR. SELIGMAN: I am really happy to hear these presentations in the context of this food insecurity workshop today. What it brings to mind in light of the last session that we just heard is that many barriers result in the same food insecurity outcomes, that we are conceptualizing food insecurity very broadly to think about it not just in terms of financial access to food, but also spatial access to food, physical access when we are talking about disability, which I think is really, really important, because the outcomes are all the same.

It does beg the question, though, our core food security survey module asks in every single question for the respondent to parse out, is this because you can't afford the food item? The question for you guys or maybe for other panelists from before is to what extent you think people are able to parse that out cognitively? If they aren't parsing that out, do we have some mismeasurement there? If they aren't do we need to more broadly conceptualize food insecurity to include all of these other things that decrease your access to food even if it is not affordability?

DR. ALLARD: I would be excited to hear other's thoughts on this. I think one of the things I have been grappling with how to write and grappled with how to talk about today is: is food security the right outcome for the conversation? If having enough food is different than having the right food. I think when we talk about access to supermarkets or places where you can get fresh produce that is a different question than do you have enough. I think there is room to push this a little bit.

Frankly, the better research looked at other types of health outcomes, obesity and things like that. It is a more seasoned body of literature. I think your point is well-taken. One thing I would encourage -- I know this is about food security, so it is dangerous to suggest it, but I think it is actually worthwhile to think about multiple outcomes that we would care about in this space.

DR. KAISER: Many years ago, I did do some research related to food insecurity and sort of interpretation of those questions in the Latino population, and I think that there could be some issues in understanding those questions and possibly even some over-reporting, maybe not hearing all parts of that question and thinking about will children never eat a balanced diet. They are always skipping meals because of a variety of things. I don't know that adding more words would actually

make that question better. I think in some of the populations we work with, it is hard for them to kind of cognitively follow some of this. Making them longer and more wordy don't necessarily, and taking out words. I know Dr. Escamilla Perez is also here today and has done a lot of work with issues of food insecurity and understandability of those questions. Certainly, I think that has been an issue that has been raised, and it probably should be always on the radar screen and Mark Nord too, might have comments there.

DR. FRONGILLO: Maureen was kind enough to let me step in. In answer to the question that Hillary asked. In 2003, Wendy Wolfe, Pasqual and I, published a paper, and we had some good exchange with Mark about it where we did in-depth interviewing with older people who have multiple causes for why they are food insecure besides just monetary constraint and then tested out a series of questions with different ending stems.

They could cognitively distinguish it, the problem is in a questionnaire, there are only so many questions that one can answer where the main part of the question seems very similar to something you just asked, but now there is a different tag line. The challenge isn't cognitive differentiation; it is just how do you ask it in a practical way in a survey format?

DR. BLACK: It is nice to have the issue of context on the table and to think about that. I wanted to ask a bit about geographic diversity. You showed a map of the U.S. and so we know that there are different rates of food insecurity in different parts of the country. I wanted to know what you thought about some of the explanation can be. The agricultural differences might be there and food availability might be there, but there are also cultural differences. For example, I am from Maryland, and our families are not used to eating beans.

There are some things in the food packages that perhaps don't get used as much. They may get used in other parts of the country, in Nevada, for example, where they are much more used to eating beans. Is there work that looks at the difference in place and looks perhaps at geographic diversity and what some of the reasons for that may be?

DR. WEBER: A lot of the research looks at economic differences. I am not aware of research that looks at the differences in cultural differences between places and uses that as a way of explaining differences on the map. Other people may be aware of something like that, but I am not.

DR. ALLARD: I would say, though, that your question raises a thought in my head about -- I have been

volunteering in food pantries. That has become part of my work, so I feel like I try to put a context in the work I am doing. One of the things that I do note is that different food pantries have a different level of sophistication. We think about this with the grocery stores and stuff. One of the things your question about culture got me to think about is I have been to some food pantries where they give everybody a jar of peanut butter. Then they go fish them out of the garbage because nobody wants peanut butter because that is what they get at every place they go to.

There is a certain level of local sophistication that some places have. Some of it might understand that beans aren't what people eat. I think the difference between good and really good programs is that they understand those local contours and are able to develop food programs that speak to that. Given where we are with data and questions, it is hard from a quantitative perspective to take that into account. This is where mixed methods research or qualitative research really would be useful because you could have conversations that would help you think about it. It might help you think about causal pathways. You might not be able to model it if it is CPS data, but you might actually be able to tell food pantries. It gives food pantries some ideas on how they can do their

work better, or local food programs how they could do their work better, which I think would be really useful in all kinds of ways.

DR. WHITMORE SCHANZENBACH: I have a question for Scott. The piece I felt like I was missing in the presentation was when does this hook into a policy question? I know not everybody has to answer policy questions, but I feel like we should. I had two options for you. Maybe a third one is right. Are you imagining a policy where we drop supermarkets into neighborhoods? Are we imagining a policy where we drop money into households who live in these neighborhoods? How do you bring us back to something that is like a policy?

DR. ALLARD: That is a very good. I think what you find in the policy response to this literature is efforts to create incentives for stores to locate in underserved areas. There is a supply and demand issue here, but I actually think that there is work that local government can do to help developers see opportunity in communities that are underserved. I know we are having those conversations in Chicago. I think you also need to have some leading institutions take the role in planning that. When you think about dropping in grocery stores, that is one response in places where there really aren't grocery stores. On the south side of Chicago, they didn't

even have a grocery store in Hyde Park that was significant for a long time where UFC is.

PARTICIPANT: Do you think the underlying model is that the profit-seeking entities that make grocery stores aren't smart enough to figure out that they should go there?

DR. ALLARD: This is the question that Marian and Steve raised in their JPEN paper. We don't really know why food deserts exist. We don't know how things change over time, but we do know that there is a supply and demand logic to this, and I think some of this is about the same factors that lead us to disinvest in high poverty, racially segregated neighborhoods.

I think there is issues of race that matter. I also think that there is not awareness. I don't know if I want to be fair to grocery stores, but the profit margin of selling groceries is really low. We might not have the right model for grocery stores. Actually on the south side, one of my former students just helped open a nonprofit grocery store called Louie's Groceries. I think there is one in Portland. That is another model that you can think of. Instead of dropping in a Kroger's or Safeway or Whole Foods, you find other ways of having a grocery store model.

I think in terms of like getting dollars into people's pockets, there is probably all kinds of ways you could ensure that people connect up to food resources or food assistance. I think there are some spatial dynamics to that that might help expand household budgets. Then there is transportation kind of ideas, whether it is through mobile markets, or the disabled populations, delivery or transportation services, I think those are some policy hooks. That is all I am going to say.

DR. KAISER: I mentioned the WIC example. That is a change in policy that had an effect on local foods. I think there are many different avenues there that could be looked at. There could be unintended consequences too by building a large supermarket that puts other people out of business. Maybe it is also a matter of how you help some of those stores.

One thing that we had looked at after WIC implemented was working with some of the WIC-only stores that had not had fruits and vegetables before, but how do they handle them. There is a lot of education sometimes that might need to be done so that people know how to properly handle perishable foods. Some of it could even be educational interventions that would bolster resources that are already in the community and help them do a better job

when there is an incentive added to the participants to buy more.

DR. ALLARD: One of the things I hoped that I could do at the end of the paper is talk about promising areas for interventions. I think there is some room to experiment with some neat things that are low cost and see how if those things matter. Again, if you look at the literature, a low of low income households can travel a mile to a supermarket by car.

When we think about solutions, we also have to think about solutions that are tailored to the specific nature of the need in the community and the specific dynamics in which place might matter. It isn't going to be a one-size fits all kind of operation, so you would probably want a portfolio of options that would be relevant or tailored to specific settings, if we were going to make policy recommendations. Diane, I am really glad you pushed me on that. I was worried you going to ask me something about an instrumental variable model. I don't know anything about that.

DR. PARISH: We have time for two more questions.

DR. WEILL: I just wanted to elaborate on that question. We are working on strategies when supermarkets are placed in neighborhoods to pump up incomes, which mean requiring stores that are subsidized by foundations or

state, or local or federal government to go into the neighborhood not just to participate in the SNAP, but requiring them to do SNAP outreach aggressively. Also, when you put in a store in a community in addition to doing a lot of SNAP outreach, you ought to be doing EITC and child credit outreach. There is a lot of money to get into a community obviously under any circumstances, but particularly connected to the opening of a new store.

DR. JONES: So building on this conversation a little bit, I am really grateful for having context and us thinking about local food stores. I also want to encourage you to think a little bit, Scott, about the fact that the food store is sort of the store front for an entire food system. It is not surprising that we think of that as a local problem, but it is also a global marketplace that is dealing with local constraints.

I really appreciated the example you just gave of the nonprofit grocery store, because I think an interesting policy question for us is how much local control communities have over the kinds of food and where they are located. Is that the predictor of food insecurity in the community?

DR. ALLARD: There is some promising work on civic community and social capital, at least conceptually promising and I think empirically potentially promising

work that addresses those issues. You can make a good case for areas that have greater advocacy whether it is political or economic advocacy, whether it is policy advocacy are going to have better or different types of resources. I think my example is there is going to be a Whole Foods in Hyde Park now in part because of what the University of Chicago did. Not that Whole Foods is what everybody should have.

I think the University of Chicago has been working hard to kind of bring or ensure that there are resources in Hyde Park. The University of Chicago is not in Englewood, and Englewood is vastly underserved and has all kinds of other issues. It isn't as politically potent. I think those issues matter a lot. I don't know if they matter to food security. It is hard to know how that directly translates to food security or even if you could even indirectly translate it, but it certainly affects how you think about the interventions that get applied in certain places, and I guess the location of grocery stores too. That is a good question. I think it is a smart area to pursue.

DR. PARISH: I would like to thank both the first and second panelist for setting off on such a great start for our workshop. So thank you.

## AFTERNOON SESSION

DR. ZILIAK: The moderator for sessions III and IV is Sonya Jones. Sonya is the deputy director of the Center for Research and Nutrition and Health Disparities and also assistant professor in the Department of Health Promotion, Education and Behavior at the University of South Carolina. Dr. Jones has research interests in the consequences of nutrition policies and programs for women and children. Sonya will serve as the moderator for the first afternoon session, Individual and Family Coping Responses to Hunger, and then after our break at 2:00, for the Community Responses to Hunger. I will turn the mic over to Sonya to introduce the first panelist.

**Session 3: Individual and Family Coping Responses to Hunger, Moderator Sonya Jones, University of South Carolina**

DR. JONES: Welcome back. Thank you, Jim. I am really excited to introduce our panel on Individual and Family Coping Responses to Hunger. Our first speaker will be Mariana Chilton who is an associate professor of Public Health at Drexel University School of Public Health and the Director of the Center for Hunger-Free Communities and the co-investigator of Children's Health Watch. Dr. Chilton founded Witnesses to Hunger to increase women's participation in the national dialogue on hunger and

poverty. Dr. Chilton received her PhD from the University of Pennsylvania, Master of Public Health and Epidemiology from the University of Oklahoma and Bachelor of Arts degree from Harvard University.

Our second speaker, Katherine Edin couldn't be with us today, so Sarah Zapsolsky has very graciously agreed to step in for her. Sarah is currently a social science research analyst at the Food Nutrition Service SNAP program Evaluation Branch and was the project officer for the SNAP Food Security In-Depth Interview Study run by Kathy Edin and Mathematica. Prior to work in the federal government, she was a senior research advisor with AARP specializing in low-income older women's issues and on vulnerable populations in relation to Social Security reform. She holds degrees in geography from Clark University and Florida State and another Masters from Johns Hopkins. She is very grateful for the insights of Kathy Edin and her team and for the support of this project by the Food and Nutrition Service Office of Research and Analysis.

Finally, our discussant today is Colleen Heflin. Colleen is an associate professor in the Harry S. Truman School of Public Affairs at the University of Missouri. Dr. Heflin's interdisciplinary research focuses on understanding the survival strategies employed by low-income households to make ends meet and the implications of

using these strategies for individual and household well-being and how public policies influence well-being. A central focus of her work has been on understanding the causes and consequences of material hardship, and her research has been supported by the Economic Research Service at USDA, the University of Kentucky Center for Poverty Research, the Institute of Research on Poverty at the University of Wisconsin, the Southern Rural Development Center at Mississippi State. She received a PhD in sociology from the University of Michigan, so welcome to all of our panelists.

**Speaker: Mariana Chilton, Drexel University**

DR. CHILTON: Good afternoon. I would like to acknowledge my coauthor, Dr. Amanda Breen, who is the audience today, and Jenny Rabinowich, and Sherita Mouzan who is a member of Witnesses to Hunger.

I was tasked with talking about coping, individual and family coping, and what I am going to do today first of all just lay some groundwork for some upfront concerns, so there is no subtlety to what we are going to talk about. I will breakthrough what you all might think of as subtly. I have been asked to talk about what we already know very briefly and then talk about what we don't know. Before we get into what we don't know, I think it is really important that we understand what is

emerging right now and some of the newer discoveries that we are making. Also, try to think about some ways that we can develop future research.

Upfront concerns: Is it truly important to distinguish between child food insecurity and household food insecurity? I am hoping not to really answer that, but I am hoping that continues to stay in the back of your head. Are we really concerned about the 1 percent or the little bit over 1 percent, even though that number has almost tripled since 2006. Do we just want to concern ourselves with those who we would call child hungry, or are we interested in all children who are exposed to food insecurity in the household? It is worrisome.

Also, hunger is multidimensional. It is an economic experience. It is a psychological experience. It is a physical experience. I think the food insecurity measure captures some of that. It certainly captures the economics of it. It doesn't pick up the social issues behind food insecurity. It doesn't pick up the dynamics of food insecurity across the lifespan. I just wanted to make sure that we are remembering that hunger is multidimensional.

Then I want to talk about two areas that are very unsettling when we talk about child hunger. The first one is this concept of parenting. I want to talk about what is

unsettling about this concept of parenting from the perspective of professionals. That is us in the room, the researchers and the professionals, and also from the perspective of parents. Also, talk about where does this system play into the unsettling nature of admitting that we have child hunger in this country?

Finally, I am going to talk about some harmful assumptions that I hope we can dispel soon, if not immediately. I threw up some photographs of some of the parents from Witnesses to Hunger which is a study that most of you have learned about. This is through a participatory action study that is ongoing in Philadelphia and now in Boston and Baltimore and Camden, New Jersey, where the women are working with us to help us explore food insecurity and their interactions with the federal safety net programs, and to help make sure that they are participating in the national dialogue on hunger and poverty and also participating in how we design, analyze and disseminate our research.

This is how as professions, and I would even say as researchers, we like to think of the parents that may be experiencing food insecurity, and especially the way that we may want to think about parents who are mothers of the children that they may identify as being very low food secure at the child level. I would like to think of them

as happy and deserving and graduating and on the steps of congress. It makes us uncomfortable if we have to really drill down to the deeper issues with food insecurity and hunger. Most certainly it is very upsetting to think about some parents as actually addicted to drugs and potentially self-medication for their experiences with trauma, depression, et cetera. This is a self-portrait, by the way, of a woman from Witnesses to Hunger. She is smoking weed.

It is also unsettling to think about the context and the environments in which young children may be raised. I just wanted to point the beer bottles, the alcohol bottles with the milk bottle and the mother and child. I think through most of our current methods, we cannot drill down to this kind of level. This is what some people may call the hard to reach population.

This is certainly not what is happening all across the board with families that are experiencing very low food security at the household level. We can't be afraid to talk about drug addiction and violence and some of the negative environments in which the children that we are hoping to help are actually living in. From the perspective of parents, we know that because our work with Witnesses to Hunger is over time, we started in 2008, we have actually asked the food insecurity scale several times

of the women. We have talked about why they may answer differently.

Most of the women that experience severe violence, and I am going to get into this, actually changed their responses for the depth and severity of food insecurity. We asked why did that change with us, and they talked about how they would often hide the true magnitude of food insecurity in their household because they were afraid the person who was asking the asking the questions might report them to Child Services, or DHS, we call it in Philadelphia. They were afraid that their children would be taken away.

Then there is this idea that if we asked the question and a parent or a caregiver missed that that it lessens their importance in their child's lives. This is a self-portrait. This is Emoni and her two children. Emoni said it makes me feel like less of a mom not to have food for my children. So the very act of asking the questions puts this concept of parenthood and can you truly provide for your children -- it puts it right up front. When you drill down to those levels, it can make us particularly uncomfortable as professionals and also as parents.

This is a photograph you can see of Emoni's young child. The last thing I would want to do is for us to think about individual and family coping mechanisms without

considering the system. The system that is supposed to be in place to protect young children and children at all from experiencing hunger and food insecurity, so the second nature of the unsettling nature of child hunger is we have to start recognizing that our systems that we have in place aren't actually reaching or working for the families that we are supposed to be helping.

This is a photograph that Emoni took of her son when they were applying for emergency food assistance because she had recently been cut off of food stamps because she had gotten a raise at her job. So she was cut off and then they were extremely hungry, and she said that her child hadn't eaten for a long time, and he was hungry.

In that moment, she said he was reaching out to the caseworker to ask because she had a bag of chips. He reached out to the caseworker to say, Can I have some chips? The caseworker said no, et cetera. Emoni talks about this relationship between the experience of child hunger of her children and being at the County Assistance Office applying for food stamps. Then she got the food stamps, but there really is no experience of child hunger without any kind of interaction with the systems in place that are supposed to be helping.

Here there are just a number of systems that you can think about. You can think about the boy at the case

manager's office. You can think about between mom and child. Here she is talking to Senator Casey who at the time was on the Senate Agriculture Committee about the importance of food stamps and why she took the photograph and what she wants people to learn about it. There are so many layers to the systems that we should be paying attention to. I am not really sure that we are.

Harmful Assumptions: It is important to get them out there. There is this assumption, and unfortunately some of it comes from the National Academy's recent publication in 2006 that food insecurity and child hunger is an individual experience. It is sort of informing how we understand our measure. I think that this is a harmful assumption. Food insecurity doesn't happen in a vacuum, and it certainly doesn't happen out on the frozen tundra to the magnitude that it is happening in American society. We need to get rid of this concept that it is just an individual or family problem. We have to get away from this concept of the deserving and the undeserving poor and again be unafraid to talk to people who are experiencing drug addiction, major mental health problems and exposure to violence. We have to figure out how to fight back in the national dialogue against this portrayal of people who are on SNAP benefits or who are on TANF and Welfare, as somehow slumming the system, that there is this poor and

the undeserving poor and our emphasis frankly in our research to focus on the employed, to constantly talk about, Oh, these are working families who are food insecure. While that may be very true, it shouldn't keep us from understanding the dynamics of unemployment, the dynamics of disability and some of the more difficult issues.

Also, we have to get way from this concept that hunger is a temporary experience with temporary effects. We have to look more into what is going on into the childhood of the adults that we interview. We have to think across the generations. We have to get away from this concept that food is the only thing that is going to fix the problem. Finally, we have to get rid of this concept that the safety net is somehow this comprehensive net that works. I am not saying that all of us have those assumptions, but I have to say that those kind of assumptions that are out there in our dialogue in the United States are informing the way we frame our research and the way that we disseminate our research.

We understand that food insecurity is related to this concept of trade-offs, that it has to do with not enough money in the household so that families have to make a trade-off between paying for rent or paying for food or paying for utilities or paying for food. As Debbie Frank's

article along with her colleagues the Heat and Eat Situation. Also, Hillary in some of your work, there is trade-off between being able to pay for prescriptions and paying for food. We also know that food insecurity is related to depression, to social isolation and to anxiety. That can also exacerbate problems with parenting behaviors and with child development, et cetera. We are pretty well-versed in that. We don't know the cause. Is someone depressed first and then becomes food insecure? Are they food insecure first and then they become depressed?

I think on Children's Health Watch, we insist that those two things can't necessarily be separated. We need to maybe swim up stream. We know that food insecurity is related to poor child health and well-being. It is related to increased hospitalizations, to poor child development, to poor school performance, to suicidal ideation among children.

Also, we know that social networks can buffer families from food insecurity that is maybe sending Joey over to the neighbor's house to be able to eat food or relying on grandma or living with some other people and working with them on their food stamps to be able to feed the family. A social network can buffer. But it can also make families more vulnerable.

We also know and have bought into this concept that parents will eat less and try to minimize the effects of food insecurity on their children. I said that we know what the trade-offs are. I think many of you have seen this photograph. This is a photograph by Joanna Cruise from our perspective in Witnesses to Hunger. It is a photograph of the experience of child hunger where you can have a family that is living without running water and without electricity in a house that is very dilapidated and experiencing food insecurity.

That is an example of what happens when a family can be housing insecure, energy insecure and food insecure all at once. When some of us do this research, we forget the magnitude of the problem and how difficult it is to raise a family in that context. Again, we know about the depression, but we may often forget about that so that the real pain that depression can cause, the physical, emotional and social. It is very real and can really affect caregivers in very profound ways.

Also, again, we know that food insecurity is related to child health. There are plenty of publications on that from Children's Health Watch and many of you in the room, but what we often forget is okay so then what happens when a child is sick. When a child gets sick, it upsets the balance. This is when we get into these coping

mechanisms. When a child is sick, the parent takes off from work. That means one of those parents or that parent that is working loses some wages. That means they may go behind on rent, which may mean they have to borrow some money, which then makes them beholden to friends or to family or to a boyfriend or to a sugar daddy. A sugar daddy is often a male figure that is significantly older that has some good financial income that caregivers will live with for a time and then there is an explicit understanding that for a month or two that person will help to support the family, buy food, et cetera. That can put you in a very volatile situation. It can create more risk and put you into more debt.

When a child becomes sick for a very low income family, it can unleash particular coping mechanisms that can actually place a family at much greater risk than what we would think of as before as maybe losing a day of work. A day of work is like a domino effect into what is happening with the family.

Onto the emerging knowledge: There is this concept that the inconsistent or income volatility is related to food insecurity, lots of interest in financial strategies, violence in the family and in the community. Being this close to violence can be related to food insecurity. There is emerging research in child

development that is related to this concept of toxic stress, where there is this idea that early in childhood, if a child experiences severe stress and also chronic stress that it can't necessarily buffer them throughout their lives and then it can actually have an effect on their ability to succeed in school and maintain a job and earn a living wage. Also with Frongillo's work, children actually have a strong sense of food insecurity in the household that may be differ from how the parent might report. I am not going to talk about that. I am going to let Ed and others talk about it.

Alisha, thank you so much for the publication on Working for Peanuts, which I find to be quite true in the neighborhoods where we work in Philadelphia. There is this idea that nonstandard work where there are unstable incomes and nonstandard work hours are actually related to food insecurity. I would also have to say that this is related to churning. Not only does it mean more income necessarily for a short amount of time, but then when that person loses the job or that job somehow ends, then they have to get back onto public assistance, and then there is this churning effect. I will get into that in a second.

I just wanted to bring it down to the human level again. This is Joanna Cruise, the woman of the kitchen. At the time that she was living in that kitchen, she was

actually working in a TANF Welfare to Work Program. These are the papers that she had to file. She really didn't like her job. She found it very depressing. She talked about making such a tiny little paycheck where she was constantly hungry. She often had to decide whether she would be able to get to work because she didn't even have enough money for tokens in order to commute to work. This little pink thing on her chest is a sticker from the emergency room at Saint Christopher's Hospital where we do our research. She said if I am not at work, I am usually in the emergency room because my kids are always so sick. You can imagine why.

When we think about financial strategies, I think that we have to really have a strong understanding of the financial experiences of very low income families. Some of this data I presented at American Public Health Association in the fall. This is data from Witnesses to Hunger. I am not going to get into all of it, but I just wanted to bring it to your attention. We have to understand the financial experiences and how low income families are trying to generate income. I think that we need to be much more comprehensive in our investigations on that, and we also need to understand how they are interacting with the financial services, conventional banking, alternative financial services, which can be pawn shops, check cashing

places, and also how much they are having to rely on family and friends to borrow money, to double up, those kinds of things.

I want get into financial experiences just quickly. We know a lot of this, but I think that we sort of forget the depth that it can get to. When a family is sick, it can cause all kinds of financial shortfalls. Then families go behind on rent. They can be cut-off or ineligible for benefits. Actually I have found that in the families in Philadelphia when they are cut-off of benefits that is when their experiences with child hunger increases. I have some data on that later on.

This idea of a job that is lost or reduced hours that certainly was happening a lot during the recession, experiences with substance abuse and I also want to add robbery and theft. What does it result in? Of course, very poor housing quality and not being able to pay to have the sink fixed, et cetera. Frequent moves, homelessness, eviction, alternative living arrangements and I include the sugar daddy and shacking up, et cetera, having to trade off paying utilities one month, paying for food, sort of intermittently, very severe poor mental health and stress, bad credit, so you can't move into a better house, et cetera, also, stealing and fighting and financial dependence on others.

That just gives you a feeling for the complexity of this. In terms of income, we all think that we understand the income supports that are out there for low-income families, TANF, SNAP, Social Security, Child Support Housing, et cetera. We have to think more though about earned income and how the dynamics of earned income are related to the dynamics of the income supports. We tend to think only about the official income, wages and maybe jobs. We never really think about job satisfaction. We often may not think about childcare. There are dynamics between wanting to go to school to improve chances of earning a better wage, but needing to work in order to pay for food. It becomes a very vicious cycle that some of the women of Witnesses to Hunger call the monster under the bed.

We very rarely pay attention to what is going on with the shadow earned income, and I call it earned. A lot of it is earned, but it is under the table type of work. I can't necessarily call it illegal. It doesn't mean that they are reporting it though on their taxes. They are certainly not reporting it to their caseworker who is overseeing their TANF benefits. There is lots of illegal behavior that is outright illegal. It is sort of the hustle, having businesses on the side doing hair and doing nails, childcare, housekeeping, but also selling food stamps, doing sex work, selling drugs or being involved in

the drug trade, or relying on others who are in the drug trade, misreporting income and stealing.

It just occurs to me that there is so much underreporting. There are stacked questions about how much you spend on food regardless of whether you have SNAP benefits. Are you using your SNAP benefits potentially to buy toiletries and supplies for the house? There is so much lying that has to go on for low income families to be able to protect themselves and from their perspective to protect their benefits. We need to pay attention to that.

Some other emerging issues are -- I would have to say it has been slowly emerging. This is not new. So Weinreb was publishing in 2002 with the community childhood hunger measure before we really adopted the household food insecurity measure. He noticed that there was a relationship between severe child hunger and lifetime posttraumatic stress disorder. That was among families that were experiencing major housing risk or homelessness. Also, Melchior's study looking at the persistence of household food insecurity and how it is associated with the number of mental health problems and domestic violence. Then our new work that is mixed-methods research with a very small sample that needs to be replicated in a much larger sample looking at the experience of very low food

security at the household level and how it is related to exposure to severe violence.

I am going to put some of this data up there for you to see. We have five different measures that are qualitative categories of exposure to violence. These are the three most severe kinds. The short-lived violence you can see the red bar is the households that are reporting very low food security, again, at the household level. You will see it is a much greater prevalence of that short-lived violence among the very low food secure households, the long-term impact of violence and then the life changing impact. By life-changing, we mean rape and sexual abuse and severe neglect. The caregivers of young children reported about their own experiences during childhood and actually even currently.

There is this concept of toxic stress. What was happening to the caregivers of the young children that we were talking to? What happened to the caregivers? What kind of experiences were they having? This concept of child stress is something really important to consider. That is when a child experiences a string of frequent and prolonged adversity without adequate adult support. That is a really important issue right there is not having the right kind of adult support. A child can be exposed to severe adverse events, but if they have good support, they

are more likely to be able to buoy themselves out of that experience.

By toxic stress, we mean physical or emotional abuse, chronic neglect, the caregiver's substance abuse or mental illness, exposure to violence and also the accumulated burdens or family economic hardship, living in households the kind that I showed you at the beginning. What does this do for kids that are experiencing this? When they grow up, how does it affect them? It affects actually the brain architecture and the organ systems. Some people call it allostatic load. There is so much stress on the body that it can actually increase risk for stress-related diseases and cognitive impairment.

We have a publication that was just three case studies. I just want to give you a sense of what this toxic stress looks like and how it can manifest. This is an example of Lacy whose children came out very food secure, whose youngest child was sort of our index child. During her childhood, from what she remembers, she said that she was molested before the age of 5 years old. She was abused and neglected to the point where she was removed from the home due to the abuse. She was actually picked up by the Child Welfare Services. She said that during those times, they would run to the corner store and steal food or lie in order to get food.

In middle childhood, she lived with various foster families, bounced around. Some of those families were abusive. Then she was returned to her mother. During her adolescence, she was raped by her stepfather, forced to take drugs. From that experience, she went on into sex work. She dropped out of high school as you can imagine. She talked about not being able to function in school and gave birth to her first child when she was 16. That child was put into foster care. During that time, we asked when you did sex, what would you use the money for? She said we used it for whatever we needed, food, shelter, clothing, personal items, drugs, whatever.

On into her adulthood, still continuing with sex work off and on, talking about having to do tricks in order to make enough money to buy diapers for her children, dealing with drug addiction, intimate partner violence and parenthood. When she talks about the intimate partner violence, she said I think things would be a lot better if we didn't have to struggle or worry about how we were going to come up with rent or food or whatever. We wouldn't be as angry with each other. That gives you an example of sever toxic stress and how that can be related to severe food insecurity or very low food security at the child level.

This is not something that just happens to one person. You have to think about how it happens across the generations. This is a child that came out as low food secure at the child level. You have to think about who is caring for her. She is cared for by sick relatives, and her parent is absent. She is experiencing hunger, so what happened to the father. He has been in and out of prison, suffering from drug addiction and homelessness. He is currently homeless. She is cared for by her grandmother through child welfare services, so she gets some support in order to do that.

When we talked to her about what the experience of hunger was like, she talked about being hungry as a kid and becoming very promiscuous as a teen mother. She said we had days where we didn't eat for three days straight. We had nothing to put in our bellies but water. We were so hungry; we used to fight one another. She also talks about running to school in order to eat school breakfast. They applied for school breakfast. So what was happening to her when she was a kid? Why is it that you were so hungry you would go for three days at a time without enough food? She said my mother was abused and was self-medicating with drugs. Who was abusing her? The baby's father, so the grandmother's father who was abusing the mother and also raped the grandmother; okay, the grandmother, again, as a

child. You can see how many generations are included in this.

Thank you so much, Katherine for bringing up racisms and discrimination. I don't think you can understand child hunger in the United States among African-Americans if you are not taking into account the legacy of slavery. That is the legacy of trauma and slavery. This is from Tish who talks about this experience. She says it is like a generational curse or something when she is taking about food insecurity and hunger.

What we don't know: We don't know enough about the intergenerational transfer of hunger. We also don't understand how the public systems that are in place are protecting or buffering children or exacerbating child hunger. We also don't know enough. I haven't seen really enough research on the foster care system, on child welfare systems and how they are interacting with TANF and SNAP and WIC. If we are really interested in just that 1 percent, those that are experiencing child hunger, we need to take into account the child Welfare systems and make sure that we are being able to track that.

Do we know enough about how Head Start is buffering young children, and, again, I am focusing on young children because that is where the toxic stress is certainly happening and has its deepest impacts on families

and children as they become adults. What is happening with childcare subsidies? We need to learn more about the child and adult care food program, the CACFP. We need to pay more attention to the public systems issues that are family focused. While there is administrative data and some investigations into churning and the administrative hurdles and recertification, we don't know about the dynamics of child hunger within that recertification time period. We don't know enough about what is happening when there is this churning, this on again, off again, which is very much related to this concept of maybe working for peanuts. There is lots of volatility going on. That is where you need some ethnography to be able to tease that out.

Does categorical eligibility make a difference? Does pairing LIHEAP with SNAP actually protect against very low food security at the child level. What about housing subsidies? How are those related to TANF and to SNAP? Finally, we really need to pay much more attention to employment. I am so glad the others had brought this up. We need to look at differences across states, city wage structures, labor laws, for instance paid sick leave. Does that have some kind of an impact, and also job stability, wages, employment policies? We are not paying enough attention to that. We are constantly thinking about public assistance programs, but we are forgetting about the income

and the laws and policies that are affecting people's incomes.

So this brings me back to the system. This is a photograph by Ashley Ortiz. She said this is how I think of the Welfare office, because I don't have a phone. This is the closet phone to me, and they wrote me a letter and said call for appointment. How am I supposed to call for an appointment? If I do call them for an appointment, how are they supposed to call me back? It was sort of just a rhetorical witness, this thing.

A lot of discussion of the shut-off notices, not realizing that they had been cut-off of food stamps and what happens. This is an example of the shut-off notice that is actually signed by the Governor Ed Rendell. What happens? This is just from one person's experience. "I didn't know that I was cut off of food stamps. I had a full basket of groceries that I was getting ready to buy. I had no food stamp money. I had to leave it all there and walk away. So I took this photograph of the empty cart to show you what that experience is like for me," not to mention how humiliating it was.

At Children's Health Watch, we started to look at some of those dynamics. When families are earning more and report that they have earned more and thus lose SNAP benefits, what is the impact on child health? These are

families that are earning more. They have not been sanctioned. They have earned more and either had reduced SNAP benefits or lost them. I just want you to focus on the middle bar on child food insecurity. If you look at the red bar, this is the family that has lost SNAP benefits due to an increase in income. Something is going on there. That doesn't make a lot of sense. Something is going on with SNAP that we are not paying attention to. It is also related to greater developmental risk. There is health impact and also food insecurity impacts. There is that little child telling you again, I am not without a system. This child is not out of context of the systems that we have in place.

In terms of research priorities, we have to be more policy and systems oriented. We have to think about multiple systems and how they are working together. We need to get beyond just thinking about food assistance. Wages and labor laws, TANF, housing subsidies, LIHEAP, we have to think about things that are solution-oriented. I think that we know plenty about the causes and consequences of food insecurity. It is time to start working with thousands and thousands of families at a time through broad-scale interventions and demonstrations. It just occurs to me that if there is a relationship between disability and food insecurity, why wouldn't we look at the

interaction between SSI and SNAP benefits and make sure that -- maybe let's just take one state and not change the SNAP benefits in relation to the Social Security Benefits and see what actually happens to some of those families. We might see some positive impact.

We need to do some research. Actually, I don't think we have enough or any on the language and the framing that helps decision makers understand and address hunger. There is enormous confusion between the concepts of food insecurity, low food security, very low food security. It is very difficult for researchers to even talk to the press let along policy makers. I think that there may be struggle even between legislators and the USDA on communicating about child hunger and food insecurity. We need to figure out how to frame this so that we can get our legislators to understand what is going on.

I am supposed to be finished. Things need to be multidisciplinary; you know about that. I am going to add longitudinal, but not just longitudinal for 20 years. We have to take into account at least two generations. I am saying two the N generations. I showed you four generations on that previous slide. We need to think about things in the long-term. We need to make sure that we are doing more participatory research because we cannot really truly understand the reality of food insecurity and child

hunger especially if we are not directly talking with people who are low income and testing our research ideas with them. These are some of the women from Witnesses to Hunger from Oriana Street. There is Joanna, lady of the kitchen. Thank you very much.

**Speaker: Sarah Zapolsky**

DR. ZAPOLSKY: I am Sarah Zapolsky from the Food and Nutrition Office. Kathy Edin was unable to make it today. I am sure she is very, very sorry about that. I understand that it is a medical emergency. I am still very excited to talk about a small piece of a larger program that we did, which started to address some of the research directions that Mariana so eloquently talked about. I am going to talk about the SNAP Food Security In-depth Interview Survey.

This survey was a small component of a much larger project, which was SNAP Effects on Food Security Evaluation. Results from that work will be published shortly. For that, we used a combination of longitudinal and cross-sectional. It was the largest survey of current SNAP participants to date. We asked at time-1 of people who were just entering the SNAP program and those who had not for six months a series of questions, including the food security module. Then we asked the same people who had just joined six months later that same module. Then we

looked at differences in food security at time-1 between the two populations and differences between when they started and six months later. That was probably about 6300 response persistence.

For this, we really felt that we wanted to address some of the gaps. We wanted to find out what don't we know. The only way could really do that is if we talked to people outside of a structured telephone questionnaire. This was not the easiest concept to communicate at times with OMB. Of course, there were things about respondent confidentiality. Also, we need to be very clear all of the time that this is not representative in any way. It doesn't tie back to the main survey. You can't generalize from it. We can get some insights.

This set of interviews was conducted between February and June of 2012 and consisted of detailed qualitative discussions that were held with a subset of 90 SNAP households with children in about six states. The topics covered included financial situations and their use of SNAP and overall food security. We also did some guided questions on eating behaviors, nutritional attitudes and shopping behaviors. We also talked about situations in which SNAP affected their overall food security. Interviews were held in the homes of respondents unless

they preferred to meet in a public place like a library or coffee shop.

We also had questions that focused on expenditures and incomes, SNAP and food shopping trips. One of the more interesting techniques was the use of the imaginary shopping trip where we said, "Pretend you are going to the store. Where would you go first and what would you buy?" This was a very time intensive procedure. It revealed a lot of interesting behaviors I will get into in a moment. Also, they talked about nutrition, triggers of food hardship and ongoing food strategies. It is the last part that I will focus on today. Although if you want to talk to me about this study, that is great. I can talk all day, but I won't because I have a thing.

Just to reiterate, the analysis is descriptive; however, each of the interviews was transcribed and systematically coded for themes that arose. The team from Harvard and Mathematica also systematically assessed whether there were especially large differences in general financial circumstances of food hardship and coping strategies, eating and food dynamics in the household and the role that SNAP plays in meeting a family's nutritional needs by food security level and also by race/ethnicity. We observed almost no meaningful differences in coping

factors by race/ethnicity. We did look at where several of these factors fell out with food security level.

Looking at food coping strategies and food security: Basically, the team broke the coping strategies into two categories that respondents employed. Reactive, which was dealing with food hardships, and proactive, strategies used to avoid it. Most respondents obviously employed both types. The most common proactive ones that were observed were restricting food intact, altering types of food consumed, turning to networks, visiting food pantries and shopping modifications, such as scouring the ads for sales, traveling from store to store on multiple occasions and planning meals exclusively around types of foods that were for sale.

There were noted differences in coping strategies used across food security levels. The least food secure were much more likely to say they had to restrict food intake and get meals to cope with the shortfall. This is the definition, so that makes sense. However, there were a number of food secure households as measured by the mail quantitative survey that we did. We had information into who reported skipping meals in person to us. They reported they skipped it so often that that was considered routine. Therefore, we start to suspect that it might be under-reported.

Examples were the mother who never eats lunch just takes the coffee that is available at work or eats much less when the children are away visiting with their father than she does when they are at home. We asked if this counted as restricting meals, "No, this is what I do."

The coping strategies, I used the most by food security status was actually related to family networks. This is one of the things I am going to really hone in on. A significant minority of food secure households with children take advantage of frequent invitations to relative's homes for meals, receive contributions using cash from friends and family. Those households that can rely on their networks to provide cash or these meals, when the SNAP benefits run out towards the end of the month, were the ones that were most likely to be food secure.

In fact, households with very low food security often explicitly stated that they do not have networks that are willing to provide. Even those that do have some social ties, for the lowest food security level, and we did the three levels, food secure, food insecure and very food secure, all households with children. Those that had social ties of the lowest group, they said they can't rely on them because their ties are usually in a worse financial shape than they are and turn to them as the contributors.

Those who share their SNAP benefits with others, not in the official SNAP households, were also clustered in the very low food security group, suggesting that when respondents extend charity to the even less fortunate that it is costly to their well-being. Some strategies that they are using: Shopping aggressively, reducing the number and quality of all meals or those of adults, never entertaining or having people over, with the main exception being birthday parties for the youngest children, and also the role of SNAP, to talk about that some.

Respondents saw SNAP as a life saver, and they planned their budgets around it. It allows parents to mostly protect their children from the worst of the food hardship, and it also allowed households to prevent hardships in other areas by using their cash for other bills. Interestingly, many households organize their budgets around the expectations that SNAP will suffice for the whole month, though the program was not designed to do that. Whether this is the planning issue on this part, or whether it is irrelevant because there is not enough food to cover all of the cash allies that are needed anyway makes this situation more intractable. I will skip to some of the major takeaways that we learned, although there is so much in there to really hear the voices of people.

The one underlying factor that differed most among the different food security levels was that of access to family and social networks. All else being equal between the two households, financially, demographically, et cetera, the parent who can sent her kids over to aunt's house for dinner is better off than those who have no such recourse. On the flip side of that, those who are donors for others are worse off.

An earlier comment today from Gundersen about the presence of older children in households being detrimental to food security kind of rang a bell for me from conversations that I overheard read that "Younger children are more welcomed to eat at a friend's house than older kids," or worse the dreaded teenage male. Respondents mentioned being clear with their older children about not bringing friends over around mealtimes or hiding food if they knew that friends were going to come over. However, the strategy was often trumped by the pride taken in ones cooking skills and the desire to make their children's friends welcome. By using the in-depth interview process, dynamics came to light that were not evident in the telephone survey, although we really liked the telephone survey. It is very good.

Just a few observations - one, was the volatile household roster. By asking not about a typical day, but

about a specific day such as yesterday or last Thursday and asking very specific questions about the meals, "Who ate breakfast on Thursday?" Normally, the household reported on the survey would be the mother, the children and parents, maybe the father. By asking specifically "Who was sitting at the table the other day?" You will get an answer like, "The uncle ate breakfast with us yesterday." "Oh, the uncle. Tell me more about that." "Oh, he is visiting." "How long has he been visiting?" "Six months." So we are thinking about ways we ask about the household roster. Also, there is the cousin that shows up at the first of the month, something that everyone experiences.

Another observation, the extreme and constant thought which is devoted to managing the household budget and procuring food and making it last. Most illustrative questions for me were the imaginary shopping trip where we say take me through. You close your eyes. You are going into the shopping store or grocery store. Where do you go first? They knew. You go first to the meats. You try and get ones that you know will last a couple of meals. Then you go to the grains, the rice, and then you try and get the milk and the juice. Then you try if you have any left over to get stuff that is going to last that is nonperishable for the end of the month. The rest of your shopping trip will be to stock up on perishables.

Between that and their penny knowledge of their cost, debts, SNAP benefits, it is not a lack of education about what they need to do, it is that there is no more brain power to dedicate to thinking about this. It is constantly on the minds of them.

Then a note about measurement: One thing we didn't pursue, but we looked at it, was that for the less acculturated or the Spanish speakers we talked about in the participant pool, they could answer affirmatively to all of the food security module questions. Then we asked the last one "Are you hungry? Have you experienced hunger?" They would say no. This led us to wonder about whether there is a differing perception or a stigma to hunger, even though the question is even about the children's access to food and hunger were answered in the affirmative. That was something we would like to pursue for further research, perceptions of saying that they are hungry.

The last thing I will say is the full report is available on the FNS Website. It is In-depth Interviews on SNAP Effects on Food Security. It is very exciting, and I look forward to hearing more people read it and formulate research questions from it. It is important to hear the voices of those who are experiencing it and maybe we can learn from them.

Thank you very much.

**Discussant: Coleen Hefflin, University of Missouri**

DR. HEFLIN: I want to thank Jim and the rest of the panel for allowing me to participate. I keep telling Judi that it is really fun to get asked to think about if you had 10 million dollars to spend on research for food insecurity and hunger, what would you spend it on? That is just a lot of fun thinking about that. Today, I am going to discuss what we know and what we need to know about two different areas that are integral to how households cope with food insecurity. First I am going to talk about the trade-offs that households make with other essential needs. Then I am going to talk a little bit about participation in food and assistance programs and really focusing on the problem of nonparticipation.

While the conference today is focused on the issue of childhood hunger and food insecurity, we know that households that report childhood hunger are likely in dire financial straits. They are facing shortages of other essential needs. Households will go to tremendous efforts to shield children from food insecurity. Households that are reporting food hunger are unable to cut from any place else. So this means that they are likely experiencing trade-offs in other essential areas. In terms of housing cost, this could mean they are not paying their full amount of rent as a mortgage, or that they are living

in really poor quality housing. They are facing utility cut-off, or at least they are not paying their full rent to the utilities, and they have to do this juggling. They are forgoing medical care or prescriptions and medical expenses and that they may as well be dealing with transportation needs.

In the Edin report, some respondent talks about not going to church as often so that they can cut back to save money for food. In other cases, we know transportation needs are a trigger for households. When households are faced with the issue of having to fix the vehicle, they will take that money from their food budget if they have no where else to take it from.

When we are talking about child hunger, we have to think about the broader picture of what are the other essential needs that are also not being met. There are reports from a number of sources, but I want to highlight some results here from the Missouri food pantry clients survey that I was involved with. The Survey of Food Pantry Clients in 2010 indicates that 42 percent of clients report that they had to choose between buying the food they need and paying for medicine or medical care. Forty-six percent reported trading off between buying the food and paying for utilities. Fifty-six percent report buying food and paying

for rent or mortgage and 60 percent report trading off between buying food and paying for gas.

Among the food pantry clients that we interviewed, only one quarter did not report any of these trade-offs. So these trade-offs are incredibly common. In fact, one-quarter again reported making trade-offs in all four areas within the last year. Once again, when we are talking about food insecurity, we are implicitly talking about other sorts of material needs that are not being met. Some work I did with Andrew London and Ellen Scott looking at the Urban Change Data, an ethnographic study that was done in the early 2000s, led us to think about what are some unique aspects of food insecurity that impact how households cope with food insecurity versus other types of material needs. I think there are at least five that I would mention.

First food consumption is very sensitive to income fluctuations in that small amounts of money may be all that is required to improve or worsen the experience of food hardship in contrast to some other types of forms and material hardship, like housing or utilities that have higher thresholds. Perhaps as a result of this low threshold for remediation, food hardship is often experienced over a very short time frame. The qualitative reports make it pretty clear that food insecurity is often

experienced just for one or two days at the end of the food stamp cycle.

Also, we know that food needs are recurrent. Food stores are not durable things like clothing. There is this continual pressure on the household budget to provide for food. Unlike utilities where you pay at the beginning of the month and you don't have to worry about it until the next month; there is this continual need to keep the food supply adequate. This is problematic because (4) we know that demand fluctuates over the month. Households expand to include both short-term visitors like friends and friends of the children as well as more long-term visitors, live-in boyfriends, sisters that need help for a little bit. This makes it hard to plan and optimize.

Finally, we know that unlike housing and utility hardships, it is pretty clear that food hardships are not uniformly experienced within the household. It is clear that adults will cut back in order to shield their children. There are some differences here that we need to think about.

Given that households who are food insecure are likely to be experiencing these other forms of material hardship, it would be really helpful if we had a nationally represented data set that contained measures of food security as well as other forms of material hardship.

Currently, we go to the Current Population Survey. It is the gold standard for looking at food security data. I think others go to the survey of Income and Program Participation when you want nationally represented data on other forms of material hardship, which are found in the Adult Wellbeing Topic Module. The questions in the SIP are not very good in terms of food security, so we can't really look from a quantitative, nationally representative sample in how these experiences exist together.

Given what we know is a high comorbidity among these conditions, this is really problematic because we are likely ascribing some of the consequences to food security which are likely due to other types of hardship as well, or maybe due to the combinations of hardships. We are ignoring a piece when we get to the consequences of what these other hardships might mean. Certainly when we are trying to understand how people cope with food insecurity, it doesn't make sense to ignore the other forms and material hardships that households are experiencing. To some extent, I know we have to think about the fact the fact that USDA administers food programs. HUD administers housing programs. HHS is going to deal with the medical issues. But this bureaucratic parsing out of the problem is going to ignore the holistic experience of children and the households that they are living in.

I think maybe we can think about the Healthy Hunger-Free Kids Act as providing an opportunity here to think about the issue of childhood wellbeing more broadly. Additionally, I think in order to better devise strategies to address food insecurity, we need to know more about where food fits in the list of priorities of essential needs and how this prioritization process differs across families. What rules do families use to decide which trade-off to make when they are faced with scarce financial resources? If food is always the last thing to be cut, that is very different. In some households, they are going to cut food before they cut utilities or different times of the month. I think it is really important to understand what this optimization process looks like.

We also need to understand how this process differs with specific family situations. In particular, I am thinking about families with very high medical needs, families with family violence issues, and drug and alcohol dependence, where families may actually be optimizing something else besides their food security. In some cases, where they have family violence or medical issues, it might actually be a good decision on their part.

Partly, I wish Kathy Edin were here, but I would like to think the work she did in the 1990s with the food budgets or with the family budgets. I think it would be

fantastic if we could really get a sense of family expenditures and resources and relate that specifically to all forms of material hardship to get really a sense of how families are prioritizing.

Switching gears now, we know that households that are food insecure, the participation in federal food assistance programs is often their main way of coping. I want to think a little bit about what we know about nonparticipation. We know eligible nonparticipation rates vary quite a bit by food assistance group. For SNAP, we know that maybe three out of four participate. For WIC, at least in the first year, when the children are between birth and one year, we know that maybe four out of five are participating in for school lunch and perhaps three out of four. With school breakfast, maybe that goes down to 50 percent. We know that there is a large variation here in terms of participation.

Over time, we can see that participation has increased 20 percentage points from the mid-2000s to current rates. Over time, there has been quite a bit of difference in participation rates as well among eligible populations. I think this makes me at least a little bit unclear about what the future is going to look like. Is it going to go back down? There is no reason to think that we are at this very nice level of 75 percent, which you could

think the glass is half-full or half-empty here about that last quarter.

Regardless, we don't really know where we are going with this. It is going up nicely now, I am for one not very convinced about what that will look like in the future. We also know that there are huge differences in geographic context of this. To sort of think about the earlier research on this, we know that there are places like Oregon where close to 100 percent of eligible participants are participating, and places like Florida where you might be 40 percentage points lower than. Your access to food programs -- at least your participation choice -- is greatly influenced here.

In thinking of what do we need to know here, I want to think about how as AER incentive funds and case load pressures have induced states to changing their administrative procedures. We need to think about how application processes are organized and how this might influence participation rates.

We tend to think of food stamp eligibility process as involving a paper application, a wait in an office, and then an interaction with a caseworker, but many states such as Florida that I have looked at in some detail that is not the case. There is an online application. You have no caseworker. If you have a question, you call a

call center. If you can get through, you can get your question answered. Your eligibility interview is going to happen over the phone. So there is no face to face contact. Things look very different than what we think of as traditional social service delivery. I think we need to really be aware of which groups are going to be able to negotiate this and which are not.

From some work I have done in Florida, it looks like this type of application process is very easy for the working poor to negotiate and probably benefits them. They don't have to take time off of work. They can do this all on their own time. However, there are other groups like the elderly, the disabled, those with language or computer literacy issues that have a much harder time negotiating this modernized application process. So the Pandora is out of the box. States are modernizing, but I think FNS and the research community need to really take a look at this and see what this drive towards efficiency is really doing towards accessibility of the program.

Finally, I want to encourage us to think about how cultural factors and stigma might be influencing participation rates. I have done some with Bruce Weber and some colleagues contrasting application process in Florida and Oregon. It is pretty clear that in Oregon there is a sense of participation in SNAP as a right and almost a

responsibility. The Governor there has taken the food stamp challenge. He convenes a hunger task force. There is a real sense that the social service agency is organized to make participation as easy as possible for all eligible participants. Whereas in Florida, the system is described by hunger advocates as a dare to apply system, and participants who take it up are basically seen as signaling a lack of personal responsibility, as being takers. The difference between 100 percent participation in Oregon and the 60 some percent in Florida is likely not a surprise. I think we need to think a little bit more about these political factors and the role of nonprofit groups and hunger advocacy groups in shaping that culture of participation. I think as a research community, we haven't really thought that much about that.

This may be over-reaching, but as we think about the structure of future research opportunities, I have just a couple of suggestions. First, I hope that there is a role for small grants programs, similar to that at the University of Kentucky Center for Poverty Research has been running. I think the program has been very effective at expanding the pool of researchers doing work in this area. I think large component of grant programs are going to be very effective, but I am hoping that there is also some small funds remaining for small grants because I think it

is tremendous value in reducing the entry costs. I think it is going to attract some more researchers that want to just tentatively take a look at this field. I think that is really valuable. As we increase the pool of researchers, we are increasing the ability to get some new ideas.

I know everyone is talking about mixed-methods research, and I think that is important, but I am going to frame this more as an interdisciplinary approach. When I think about what we are trying to do here, I define the task as the issue of childhood hunger and food insecurity involves the study of economic decision making and social processes with nutritional health and developmental consequences that are structured by political, economic and social factors.

You can see with this definition, there is something for everyone. We have economists, sociologists, public health, social work, family studies, and medicine. I think in order to in order to really move forward in this area, I think people have expressed frustration as to why we have not gotten farther in the last 20 years. I think we need to stop thinking about quantitative and qualitative and really think about interdisciplinary approaches of trying to get the teams of researchers to work together and hopefully we can all move forward.

DR. JONES: We have 10 minutes for questions.

Please say your name.

DR. PEREZ-ESCAMILLA: Thank you very much for a most informative and wonderful session. Overall, I think that the coping research that you have summarized for all illustrates examples of what I would say are negative or harmful coping behaviors for the most part. My question is have you or other groups done positive deviance type of research to try to understand how households living under similar conditions of poverty that are food secure are coping with the condition in a positive way.

DR. CHILTON: Thank you for the question. I actually think that when Colleen was talking about one of the coping mechanisms that family uses to participate in public assistance programs, I don't consider that a negative. I consider that very positive because the people are working to get involved with a system that is meant to help them. I am sorry if I have been portraying more negative types of things. I don't think that. I think positive deviance would be having a small business on the side. If a woman is doing hair and doing nails, childcare, housekeeping, et cetera, that, from my perspective, is positive deviance, and we could be investing more in that.

Right now, that kind of activity is criminalized, and so a lot of the positive things that

families are doing, they have to lie about and maybe cheat the system. I actually think that selling food stamps could be a form of positive deviance; however, it is currently criminalized, and the fact that I am talking about this in front of you all makes many people very nervous. I am a form of positive deviance myself. I think that what gets in the way of us looking at these kinds of things in a more positive light is some of our lingo, the way that frame our research questions and our fear in the national dialogue about how to investigate this.

My one last thing about positive deviance is that there is this sense that with positive device, some families are smarter than others and do these really creative things that is somehow devoid of the systems that we have in place and the policies and programs that we have in place. I avoid that kind of terminology because it decontextualizes the family from the systems in place. Thank you very much for bringing it up and I think that could be an area for future discovery.

DR. NORD: I want to make a perspective comment first and then I have a question for Mariana or a suggestion. The perspective is this. I loved the illustration of Oregon and their near 100 percent participation. Does anybody know what their participation rate was before the first publication of state rates of

food insecurity? It was just about median for the country. In the first years, Oregon had the highest rate of what we now call very low food security and was then called food insecurity with hunger. Then Governor Kulongoski ran partly on a platform of doing something about that and obviously there are things states can do that improve both food security and participation in programs. It is kind of our poster child for the value of monitoring, so enough of beating my own drum.

The piece that I think would be really helpful in some senses the picture that the Witnesses to Hunger paint, which I think is an extremely important picture. Somehow that needs to interface with something a little quantitative, so we now if that is the 10 percent of the 1 percent, or if that is the 2 percent of the 1 percent, because it makes a different in how we think about intervention. Clearly to help those families, it almost can make you too discouraged, but at least it is clear that there is a broad-spectrum of needs that need to be addressed to work out those problems.

On the other hand, the Early Child Longitudinal Study that Judi Bartfield did some analysis of like over a five year period, the proportions of households reporting even very low food security among adults in those households over the entire period is almost vanishingly

small. This suggests that this really extreme, persistent multigenerational problem may only be a small piece of the puzzle. I am not so sure that is true. Some way that we can kind of gain some perspective on where the types of households that you are depicting fit into the whole piece, and will really be helpful, I think, in the future.

DR. CHILTON: Thank you, Mark. I couldn't agree more. I think the photographs help to bring to light, but they are bringing to light only a certain proportion, and it is hard for us to really know what the magnitude of the proportion is. That is all the more reason we should be doing mixed-methods research.

I also think that it might be time for us to look into the child welfare system and maybe be tracking food insecurity among foster children or children who are in the child welfare system to maybe think about that. Maybe some of us ought to start asking more questions about drug addiction and exposure to violence in our quantitative studies, basically insert them in, to be able to figure out what is going on.

I think that it is practically impossible to take the methodology of Witnesses to scale, although we have thought of ideas of how to do that. I appreciate the concern and the worry, and we will try to figure out how we can explore that. I do think it can be done quantitatively

if we can be smarter about maybe inserting some measures about exposure to violence and drug addiction. Thank you very much.

DR. FRONGILLO: I just wanted to pick up on a comment that was made. I was really glad to hear the report of the progress for the in-depth studies with the SNAP participants. I think that is really important. One of the things that you said was that you referred to people's willingness in a face to face interview to admit to the problem if you like versus a response on questionnaire items.

When we first started doing in-depth interviews with elders in the 1990s about food insecurity, we found that they were very willing to tell their story so that you could determine whether or not they were food insecure, and to what extent, and what that meant and all of that.

They wouldn't tell you directly that that was the problem they had. Yet, they would still tell you their story and then it made us wonder when we follow-up as we did on the telephone interview would they response affirmatively to the items or not. We weren't sure. They were willing to respond to the items because it was safe for them to do so. We had this situation where the in-depth interviews told us that they were food insecure.

They wouldn't say, I am food insecure. Yet, in the questionnaire, they were able to affirm the items.

I think that is probably fairly common, but I think a couple things Mariana and Colleen said I think are really important -- that context really matters. If they think that they are going to lose something by responding affirmatively, like they are going to lose their children or they are going to lose their benefits, then of course that is going to affect their response. I think the other thing is that life course matters.

Elders we talked with in upstate New York who had grown in the south and had very, very challenging experiences when they were young, and their parents had very challenging experiences, had very different views of what was normative. That influenced the way they talked about things. I think that is one of the challenges we have as Mariana pointed out, thinking through what are the implications of long-term history in families of the kinds of material deprivation that we were talking about.

DR. BERG: Mariana mentioned the importance of researching TANF, and I want to ask if any of you are aware of any research, literally in the last decade, on the link between reductions in TANF and food insecurity. There was a bunch of research right after Welfare Reform in the mid to late 1990s, honestly, when people from the left

basically said we told you so. This is going to turn us in Calcutta.

People from the right said we told you so; everything was going to be perfect. Just to give the case study of New York City in the last 10 years. The SNAP caseloads have gone up 1.1 million. The cash assistance caseloads have actually declined by 100,000.

So there are 1.3 million people just in New York City who are now getting SNAP that warrant more than the cash assistance. I submit people may waste cash assistance on ridiculous things like rent, but some of them might actually use it on food. I am wondering if you are aware of research at any time in the recent past on this, and if not, whether you think that is a useful area to look into?

DR. CHILTON: Thanks very much for the question, Joel. Children's Health Watch, which, back in 2002, was called CSNA, the Children's Sentinel Nutritional Assessment Program. I am sure everybody can remember that.

It has a publication on the impact of TANF sanctions on the health and wellbeing of young kids. We saw that if a family was sanctioned off of TANF for failure to comply that it increased the risk of hospitalizations. We did another more informal study that is not in a peer reviewed journal, but a couple of years ago, we also looked at reports of increased income and therefore loss of TANF

benefits, and that, too, was associated with child hunger. The reason I mentioned that we need to be exploring TANF is that I think that there is a very strong relationship between loss of TANF benefits and food insecurity. I think that we definitely need to have more. I don't know if anybody else in the audience knows of other studies on the dynamics of TANF and food insecurity other than what Children's Health Watch has done.

DR. HEFLIN: Yes, I know there some stuff from the Women's Employment Survey as well as from Fragile Families. There is quite a bit out there, looking at sanctions in particular, but the TANF population for all of the surveys that were constructed around the late 1990s and early 2000s that are still ongoing. It is really a TANF population. I actually think that is a population that there is actually quite a lot known about. It is now kind of dated. The samples were drawn a long time ago, but there is quite a bit I think.

DR. SANGHA: I have a question for Marianne. Your case studies look 18 years back when I was a nutritionist with WIC in Philadelphia. It was quite an experience. I agree with you, and I am not undermining the safety nets like the WIC programs and things like that. Of course I did not know the multigenerational effect at that time, but I had a participant at that time that was taking

care of foster children, clearly on drugs because her mouth was all frothy with things coming out. As the system dictates, we gave her the food packages. I remember at that time my gut feeling was if she can afford drugs, she can afford food.

I am not trying to be a devil's advocate here, but I am just trying to say it is a safety network, but here is a reliance on these programs also. Of course in this session, I think the words that resonated the most were violence, drugs, alcohol. How do we address that as a community, as a community, as a resource group? We are researching food security, but some of these seem to be beyond our scope. These are the root causes.

DR. CHILTON: Thank you so much for the question. It gets complicated, doesn't it? There is this struggle with why give her the food package when you know that she buy drugs, et cetera. Think about why she might be doing the drugs. She might be self-medication for having been exposed to trauma or sexual violence, et cetera. If you don't give her the food package, what other kind of risks are you putting her into? There are efforts across the country in a variety of states, including our own, where they are trying to have people who are signing up for SNAP benefits get drug tests. If they test positive, then they wouldn't be able to receive SNAP benefits.

Of course there is no discussion of well maybe these people actually might need some help, and let's get them into a system where they can get the kind of services that they need. It is just to pitch people further away.

I think that we need to rethink this relationship between SNAP and WIC and other subsidies, that potentially the subsidy or the house, the WIC vouchers or SNAP benefits could actually be the way to bring someone into the systems and then be able to find the family more help. I think WIC has done a pretty good job in several states to integrate domestic violence counseling into the WIC offices. It is a great place to be able to bring people in when they are getting some food and nutrition education to be able to help them hook into other services.

The last thing we should be thinking about is pushing people who are extremely poor and also recognizing that when people are using drugs or experiencing drug addiction, it is a long line of offences and violations to their dignity and health and safety that we need to be taking into account and not judge people in the moment for whether they are smoking, drinking or utilizing alcohol. I think that this is something that we can talk about here sort of openly, but I think that we also need to be very careful in how we frame this issue outside of this world of research. It is going to take a lot more of us to be

talking about exposures to severe violence and to severe poverty at the same time during early childhood. I think focusing on early childhood might be the clincher for being able to solve this problem. Thank you very much.

DR. JONES: Please join me in thanking our panel. You have a 10 minute break and then we will start again.

(Brief recess)

**Session 4: Community Responses to Hunger**

**Moderator Sonya Jones, University of South Carolina**

DR. JONES: We are very lucky in this session to be talking about community responses to hunger and to have Katherine Alaimo lead with a talk and then Joel Berg, her discussant. Katherine Alaimo is an associate professor in the Department of Food Science and Human Nutrition at Michigan State University. Her research interests are in the area of community food security, urban agriculture, policy and environment supports for promoting healthy eating and physical activity, school nutrition and community-based participatory research. She recently completed two school projects, Project Fit, a school and community-based project to improve nutrition and physical activity among elementary school students, funded by Blue Cross/Blue Shield of Michigan and the USDA SNAP-Ed Program and the snack project designed to improve middle school

students' diets in Michigan funded by the Robert Wood Johnson Foundation Healthy Eating Research Program. For many years, Dr. Alaimo has worked with community members in Flint and Detroit, Michigan on urban agricultural participatory research projects including the Community Garden Story Telling Project of Flint, and evaluation of the Detroit Garden Resource Program Collaborative.

Previous positions include the W.K. Kellogg Community Health Scholar at the University of Michigan School of Public Health and nutritionist for the National Center on Health Statistics Centers for Disease Control and Prevention. Dr. Alaimo holds a PhD from Cornell University in community nutrition.

Dr. Joel Berg is a nationally recognized leader and media spokesperson in the fields of domestic hunger, food security, obesity, poverty, food-related economic development, national service and volunteerism. He is the executive director of the New York City Coalition Against Hunger and a senior fellow at the Center for American Progress. He is also author of All of You Can Eat, How Hungry is America.

Thank you, Katherine.

**Speaker: Katherine Alaimo, Michigan State  
University**

**DR. ALAIMO:** Thank you. I am so pleased to be here. I learned so much today, so it is great to be amongst you all and to have this conversation. Today, I am going to be reviewing just a tiny history of community programs, which is how I started this review. Then I will review community food programs for their potential to address food insecurity. Then I will give a summary on research and research recommendation.

These are the six areas that I decided to review. Some of them were given to me as part of my topic. It is very, very large. I am not going to be able to spend very much time with each of these topics, but I will do my best to kind of give you a small overview.

I have been a little bit removed from the food insecurity research world. I started my reading with a little bit of history. Just to remind ourselves that the Emergency Food System, the most recent organization, began in the early 1980s, so we have a very long tradition in the United States of providing charitable food for those who need it. Our current Emergency Food System kind of developed in the early 1980s, and we have had a community food security movement since the early 1990s. That got a big jumpstart forward in 1996 with the USDA Community Food

Projects Competitive Grants Programs. Many nonprofit organizations around the country have gotten these small grants to either start or move forward their community-based projects.

Many of the projects I am going to be talking about today have been funded by that program. This is a good time to talk about when I was asked to talk about community responses; you get into what is the definition of a community response versus a federal response. You are going to see there is a whole lot of blending here, and let's just go with it. You can't separate the federal response from the community response. These are programs that are happening at the community level, and some of them are also funded federally.

In 2007, the Community Food Security Coalition adopted whole measures as an evaluation approach for community food security projects. USDA has recently used this whole measures approach to evaluate the Community Food Projects Competitive Grants Program. They have six goals of community food security: Justice and fairness, strong communities, vibrant farms and gardens, healthy people, sustainable ecosystems and thriving local economies. Just to kind of orient you also to this presentation, most community food projects are not specifically focused on hunger, or providing enough food, rather they are focused

on improving nutrition and diet quality, which we can't forget is a component of food security.

Household food security and community food security have different definitions, but they have overlapping goals. We know household food security accessed by all people, at all times, and to enough food is important for an active, healthy life. Community food security has been defined as a situation in which all community residents have access to a safe and culturally acceptable and nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice.

In thinking about this, community food security advocates really see food as an individual and a community right rather than as a commodity or an entitlement. As I continued my reading, I realized that I found this rights-based approach to food security very, very helpful. I am using that as another orientation for this review. A rights-based approach is different than a needs-based approach. Several people have mentioned this throughout the day, but I am hoping to kind of bring it more to the forefront.

A needs-based approach focuses on food and providing to people who need it. Whereas a rights-based approach that has been recently articulated very well in

literature by Chilton and Rose and Molly Anderson creates enabling environments that support people in providing food for themselves and that has a structure for legal recourse. In other words, it necessitates facilitating social and economic structures that enable people to acquire nutrition for themselves. It is not based on charity, or giving something to somebody, but rather it is the duty and obligation of a country to its people.

There are implications to that for our work. When we think about solutions, all sectors are needed in order to solve this question of hunger and child hunger in America. We need the government and corporate and also communities. Every sector is important. It is not just enough to provide for people in terms of assuaging hunger, but rather health, dignity, self-reliance are also extremely important when we think about how we can solve this problem. The overall framework for this review is assessing community food security projects for their potential to address household food security through a rights-based approach.

Another framework, and this has been mentioned many times, so I don't need to belabor this, we can separate child hunger from adult food insecurity. Children face consequences in a house where there is that insecure situation regardless of whether or not they are eating

enough. Food insecurity includes this quantity and quality, so I am going to be talking a lot about nutrition.

The Community Food Security Grants Program has recently evaluated their grants programs using this Logic Model, which I found really, really helpful, and there were six outcomes. While I believe that sustainable ecosystems and vibrant farms and gardens are extremely important to well-being, I am not going to focus on those for this presentation.

Just to give you an overview of the Grants Program from 2005 to 2010, with 25 million dollars, people in communities produced 19 million pounds of food worth almost 20 million dollars; 2.5 million people received food through these community food projects. It produced 2300 jobs, and 1000 new businesses were created and supported 2600 existing business. This is just kind of an overview of that particular program. I am going to jump into the various sectors that I had mentioned.

The Emergency Food System: The largest network is the Feeding America Network, and they have over 33,000 food pantries, 4500 soup kitchens, and 71 percent of their clients have income below poverty, 75 percent are food insecure. Very important, only 41 percent of their clients participate in SNAP. The Emergency Food System is clearly addressing a gap, a very, very important one. In reviewing

the literature on the Emergency Food System, we need to recognize that. Also, many dedicated activists and volunteers are participating in this idea of ending hunger in this country. It enables people to actively participate in this country. It also prevents waste of food, and so many corporations are able to donate food through the system that would have gone to waste.

People have talked about the importance of outreach for federal programs. There are some challenges also to the Emergency Food System that we need to recognize. The benefits are only a very small percentage of the money available to a household from the federal programs. I wasn't able to see any evidence that the Emergency Food System is improving household food security status. It could be in definition when we talk about a reliable and regular and able to access food. In some ways, if people are getting food from the Emergency Food System then, by definition, they are food insecure. I think that needs a little bit more explanation and would be interested in hearing discussion about that.

Janet Poppendieck, and others, but she said it so articulately in 1990 in her book. She talks about the "seven deadly ins" of our emergency food system. It is insufficient, inappropriate, inadequate, instable, inaccessible, and inefficient and the indignity that people

have to access that. Can't we do a better job than that? I think that many people in the Emergency Food System have kind of taken those insights to heart and have made really amazing improvements to the system. I don't think that we have the same system that she was talking about back then.

Just in terms of discussion, I think that some of the things that she is talking about actually are still relevant now. Also, it diverts attention of ideas from citizens. What I mean by that primarily is that when you ask regular old people on the street about hunger, and what they can do to solve hunger, what they think about it, they say they would donate a can of food or donating to the food bank. I think it is going to take a larger effort than that. I think we need to just be talking more articulately about that.

There is incredibly innovative programming going on right now in the Emergency Food System, some really amazing work. I am not going to have time to talk about all of these different programs, so I am going to focus on the greater procurement of fresh food and nutrition standards. One of the critiques of the Emergency Food System traditionally is that it has been packaged food that is nonperishable simply because of the facilities that providers have available to them. There have been many gains in many places in this country with procuring those

kinds of facilities so that more fresh food can be provided to people.

We also need to think about nutrition standards. The Food Bank of Central New York kind of led the way with this, taking a stand and saying what they would not accept in terms of donations for clients of their food bank. There have been some recent studies looking at these nutrition standards. In a survey of 137 food banks, the University of California, Berkley Atkins Center recently found that 30 percent had a policy to not accept unhealthy foods like sugar sweetened beverages. Only 20 percent of food banks were fully implementing their policy. I think this is an area that is kind of up and coming and really important.

Moving on to retail environments: We have heard a lot about this, this morning, so I am not going to belabor this too much. There has been mixed results. I don't need to rehash what we have talked about with the literature this morning. This is just one example of one city where I work, Flint, Michigan and where people think that there is a food desert. When you talk to people in the city, they talk about it in that way. They also have a question. I think that the questions that were raised are really important. There is lack of access, for example, in the center of the city. You can see the blue dots are the

major chain supermarkets, and they are all on the outside of the city. This is also showing that Flint is very racially divided by African-American and Hispanic and White and that there is less access in this area to supermarkets.

The question is, is it the case that people in this area are having a hard time accessing supermarkets? They are farther away, but that does that mean that they are having a hard time. Talk about qualitative research here would be important. It is very important to find out how people are accessing food and whether or not these food deserts exist. There has been a lot of initiative on working to solve this idea of food deserts, and that is what I am going to be talking about.

The first retail initiative is placing supermarkets in food deserts. For example, Pennsylvania has Fresh Financing Initiative that has now been expanded to the U.S. Healthy Financing Initiative. These are public/private partnerships to work with grocers in order to place stores in underserved areas. They generate tax revenue, create jobs, improve housing values and grow their stores. I reviewed the literature which looked at before and after the placement of these stores to determine if there were improvements. In general, it doesn't look like placing a store significantly changes dietary patterns or

increased consumption of fruit and vegetable. These are some of the things that people have been looking at.

One study found improvement in people with the poorest diets. The literature on this is incredibly hard to determine whether there is a benefit to placing a supermarket. I think that this needs to be developed much more in order for us to fully answer this question. I don't think that we have the answer quite yet. I also wonder if there are other supports that are needed, things like coupons for healthy food and point of purchase, and nutrition education. Some people are exploring these. Just looking at one study of food insecurity and store access didn't find a difference, but we heard some other findings this morning as well.

The next is improving choices or lowering prices at corner stores, and the best example is the Philadelphia's Healthy Corner Store Initiative that has been put on by the Food Trust and other partners. They have done makeovers of over 600 corner stores, increasing the inventory of healthy products, adding marketing materials for healthy products, and business training for owners and equipment conversion. There is a very small amount of literature on this as well, but it looks like these conversions are beneficial in that along with point

of purchase and nutrition education they do improve intake and purchasing of healthy foods for both adults and kids.

Placing farmers markets in food deserts is another strategy. Again, there is small literature, but it looks like there is a benefit of placing these farmers markets in underserved areas in terms of fruit and vegetable intake. I thought this was interesting. One study found that farmers markets had an impact on grocery prices in neighborhoods. Prices decreased almost 12 percent in three years, so it added some competition there. SNAP redemption at farmers markets is growing, but it still accounts for a very, very tiny percentage of SNAP dollars being used at farmers markets, so that is a growth area. Fewer than half of states allow farmers at markets to accept WIC benefits. Redemption rates are small, and they are actually decreasing. That is another area that needs to be looked at.

Moving on to farmers market coupon programs: There are several programs like this that exist. The WIC Farmers Market Nutrition Program, the Seniors Farmers Market Nutrition Program basically provides coupons to people to use specifically at farmers markets to procure fresh produce. Then there is some exploration of programs like Double-Up Food Bucks, which we have in Michigan, and other programs. Basically, you are doubling your SNAP

dollars when you use it at a farmers market. These programs generally provide 10 to 50 dollars per season per family. I have in parentheses the SNAP Healthy Incentives Pilot Evaluation, which is not at a farmers market, but it is a similar program in that you get more of your money from your SNAP benefits. I am looking forward to seeing the evaluation of that program. They completed it, but the evaluation has not been completed yet.

In federal year 2011, over 18,000 farmers and 4,000 markets were authorized to accept these checks or coupons and resulted in 16 million dollars of revenue for farmers. They have a big impact on farmers. I think they kind of have an impact on nutrition as well. It looks like coupons increase attention and intake of fruits and vegetables. There are actually many studies on this that pretty consistently show those findings. I think there needs to be more done on this. One study in Iowa showed that fruits and vegetables at farmers markets are similar in price to supermarkets. I think that is from a concern that people have sometimes that the prices are higher at farmers markets. And 90 percent of farmers reported that the Farmers Market Nutrition Program increased their market sales. They are definitely having an impact on farmers as well.

I only could find one study looking at food insecurity rates after participating in the WIC Farmers Market Nutrition Program, and they didn't show an impact. This really wasn't actually surprising. The coupons were worth 18.00 dollars. I don't think we would actually expect to see a result with food insecurity. They did show an improvement in impact of fruits and vegetables though.

The next topic is urban agricultural and community gardening. This is one area that I have been working on since 2000 in Michigan. Gardening is very popular. Over 83 percent of U.S. households are involved in some form of lawn or gardening activities. They are relatively low cost for families. Don't forget that SNAP benefits can be used to purchase seeds and plant starts. I think that urban agriculture relief capitalizes on available assets in many struggling cities and gives voice and a way for citizens to take action for themselves, to improve food security and nutrition for their families.

I work a lot with folks in Detroit where we have 30 to 50 percent of our land vacant, and many people see that as a detriment. Actually, we see that as an incredible asset. It is extremely cheap to get the land next to your house to have space to grow your own food. These cities have many assets. This is a flyover of the city. It looks almost rural in many parts of the city.

The purple areas on this map are the vacant land. You can see how extensive the vacant land cover is in the city.

This isn't necessarily the same as all cities across the country having this much vacant land. I think that we can learn some lessons from what is going on in Detroit that actually can speak to urban agriculture throughout the country.

Just to give an example of Detroit, people have studied the amount of land available and resources, and it is possible to produce 76 percent of vegetables and 41 percent of the fruit needed. If all Detroiters were going to eat the dietary guidelines and recommended levels of fruits and vegetables, then there is the amount of land to produce that many of those fruits and vegetables. One study looked at the economics of it. That has shifted to local production.

We provide 4700 jobs and 20 million dollars in tax-base. I work with Keep Growing Detroit and other organizations in the city, and they have really taken this to heart and have this goal of food sovereignty through food systems change.

We have been measuring how much people grow and kind of extrapolating, and it seems to me that we grow about 1 percent of the fruits and vegetables that Detroiters eat within the city. The goal of food

sovereignty is to produce the majority of fruits and vegetables that you eat within the city. The goal is to get up to 51 percent. It is an incredibly lofty goal, but if you spend some time in Detroit and feel the energy, I think that they are certainly going to increase that percentage from 1 percent.

The Detroit Garden Resource Program Collaborative is similar to many gardening organizations across the country. They provide plants and seed starts to people and assistance with plowing and water, et cetera, et cetera. They have 1400 gardens in the city participating and over 15,000 adults.

When we measure how much is possible to be grown, it looks like about \$920 worth of produce is kind of average per season. They have a new program called Garden Grown in Detroit, which is an income generation program. For a very small class you learn how to wash and package your vegetables and no startup costs whatsoever. You can bring your extra produce that you have that particular Saturday. Also, markets wholesale throughout the city to market and sell and then take home that income that you have generated.

This collaborative enables people to improve their incomes. There is a higher yield on investment for agriculture. There is an estimate of 1 to 6 ratio dollars

to value of produce. Potential revenues are up to 90,000.00 dollars per acre. Many people are interested in gardening. I have a colleague in Denver, Jill Litt, who has also been doing participatory work with gardeners. She found that gardeners eat more vegetables. The more they grow, the more they eat. We hypothesize that this is a larger effect than almost any nutrition intervention we have seen because of this access, plus social connection, plus the attachment to place and nature that you get from gardening.

Only one study has looked at food insecurity before and after. There was no control group. Thirty-eight families is very small, but the frequency of sometimes frequently worrying did go down quite dramatically, although the frequency of skipping meals did not. Farm to School and School Garden Programs is another area. I don't know if the answer is there yet to know whether or not Farm to School would improve nutrition with children, although it is really great for other reasons. School gardens do things to influence kid's diets.

Finally, nutrition education: Again, looking at the federal programs like SNAP-Ed and EFNET -- SNAP-Ed was too variable to summarize. I got kind of overwhelmed. That is all I am going to say about that. EFNET has some really great evaluation and more standardized programs to

teach nutrition education. It is paraprofessional so it is peers teaching other peers. They have had really good results. Only one study has looked at food insecurity in New York State. It looks like food security did improve with program graduates.

Emergency Food System should have examples as well. For example, Share Our Strength has Cooking Matters Program, and they don't have a control either, but 69 percent of their adult graduates eat more vegetables just as an example. This just summarized all of the strategies that communities use, giving away free food, making sure healthy food is available for purchase nearby at affordable costs, making it cheaper, self-production, small business job creation and nutrition education. These are just to summarize.

Improving the diet quality of low-income households can be supported by these community programs, it seems to me. We need to improve the diet quality of all Americans. I teach nutrition to undergrads at Michigan State, and really all of us need some help with nutrition education. I don't think we should always be thinking about low-income and nutrition education. We should just be thinking globally and about the country and nutrition education.

Strategies to improve income wages are generally not emphasized in these community food programs other than for growers, and growing food can supplement family food supply and income. Very little research has been done on the household economic impact of food security status for most community food projects. If we are going to do that - - people have been saying this all day -- we may need better measures of food insecurity to capture these nuances and improved diet quality in the community food program.

I just wanted to put my plug-in again that economic policies and federal poverty programs and the Federal Food Security Programs really are and should be primary responses, but these community programs can really help. They can help advocate and support and allow people to participate in growing food for themselves, for example.

What are some recommendations? I am just going say, again, mixed-method. I liked Colleen's cross-discipline as well. I want to be another voice for participatory approaches. You can learn so much by collaborating with community members on doing these projects. I have had my research questions completely changed by community members. I was interested in one thing. Then I came to the community, and they said we are not interested in that. That is not going to help us out at all. We need to be researching this. It builds a much

stronger research program to involve people in the community in your research projects, developing those questions, developing the methodology, interpreting the results, and then using those results to advocate.

We need to determine whether these community food programs improve economic and food security status of the household, so promoting the measure in these programs. Programs that are often small are successful at a small scale. What does it take to scale up the food programs? We should continue to document economic development outcomes, when needed, and rigorous evaluation methods, when possible. So they are not always possible.

Just specifically, for various sectors, I think the Emergency Food Systems innovative strategies are really cool. Some evaluation is being done, but more needs to be done. Also, we need to be challenging focus on the rights-based approach and addressing fundamental causes. I would love to see research with the donating companies to the Emergency Food System to document how much food insecurity exists in their workers. We need new nutrition standards for food banks and improved food security, so that is another area for that.

For retail initiatives, I think thinking creatively about it is also needed when you place a supermarket in an area to change diet patterns.

Qualitative research for farmers markets and expanding farm to consumer sales by SNAP and WIC recipients and developing technology to enable mobile vendors such as farmers to utilize the same EBT systems for SNAP, WIC and coupon programs. Right now, that isn't being done, and evaluation of more outreach programs to encourage SNAP and WIC recipients to use markets because it seems to improve their fruit and vegetable intake.

In terms of urban agriculture, changing the zoning to recognize urban agriculture as a recognizable land use is important. We can think about how that can improve food security and more economic impacts of cooperatives and things that enable farmers to capture larger percent of profits.

I want to thank Caroline Crawford for research assistance for this presentation.

**Discussant: Joel Berg**

DR. BERG: Since we're at the National Academy of Science, I will start with a science experiment. Now gravity like evolution is only a theory, but I want anyone who wants to take this bet in practice is going to land on the --. Anyone want to take that bet? It works. My point today is that social science is also science. You guys are social scientists. All of you believe that. I am glad we are at the National Academy of Science to reinforce that

because of the first points I want to make is we only have 15 years of work with food security data at the national level by and large. We have 50 years of poverty data since the federal government started counting poverty in a formal way.

Now we have half a century of data proving beyond any shadow of a doubt that when you engage in one set of national policies, namely investing in social programs, having government efforts to increase jobs and raise wages, poverty goes down. To pay for that, you have the wealthiest pay their fair share.

When you have an alternative set of policies where you purposely stop the wealthiest from paying their fair share and use that as an excuse to slash social programs and slash programs that create jobs, poverty goes up. I am thrilled congress gave these \$10 million for research. I know all of you will do vital, critical work with it. I will be one of your most avid readers, but let me also suggest that it is a distraction and a purposeful political distraction to create a false impression.

There is a heck of a lot more doubt about what works than the vast majority of people in the field know that works. Typical of congress, and even this administration, unfortunately, they would rather spend \$10 million on research than \$10 or \$20 billion actually

eliminating the problem. One side, little fact, according to Forbes, the net worth of the 400 billionaires in America is \$1.7 trillion, about double the national deficit of 900 million. What is fascinating about this discussion, you covered, it is great to show the dichotomy between how we define community and how we define other interventions. When people use the word community to me, they almost always mean instead of government.

I will give a talk, and I will start out with something like this, and "the way to end hunger is to reduce poverty. The way to reduce poverty is to raise the minimal wage and have serious job creation programs and dramatically expand the safety net." They will always say to me "Why do you want the government to do it? Why don't you want the community to do it? It is this fascinating idea that somehow we have developed this ideology that in a democracy that some small nonprofit group that wasn't elected by anyone, by anyone, including myself, somehow is a legitimate embodiment of community, but federal laws passed by the United States Congress and signed into law by the President of the United States are an illegitimate non-community response.

Even if you look at the community food security movement the way they define this, as you pointed out, the whole movement never really defined themselves as an

antipoverty movement. The Community Food Project's grant project, over which I kind of sort of partially, on a good day, oversaw when I was at USDA for a few years. I would have friendly fights with some of the people managing on a more day to day basis over how much of it did or did not end hunger. By in large, those are not anti-hunger grants.

In fact, I am aware of one grant in the Community Food Project Grant Program that was downgraded because one of the peer reviewers said it is bad to promote SNAP or food stamps at the time because that promotes dependency, which proves the truism that in some parts of America you get far enough left, you sound awfully like people on the right. It is this idea even among people who think they are progressive. They have convinced themselves that these community-based responses are more somehow than a national response and somehow more efficient than a national response. I suggest the data doesn't necessarily support that.

The New York City Coalition Against Hunger spends a lot of resources supporting communities and supporting agriculture. We have a pioneering community that supported an agriculture project where we subsidized shares with SNAP benefits. We subsidized it with grant money. We do a lot of work using AmeriCorp members to support community gardens. We do a lot of outreach to farmers markets. I

want to be clear I think these are good things and excellent things for the community. I think community gardens can reduce crime, reclaim urban space, et cetera.

As I often anger conservatives by throwing water on their theories, I more often anger friends or colleagues or fellow progressives, so to speak, when I say all of those lovely community food security things they love are going to do nothing or very, very little to reduce hunger in American. In fact, someone got up after a movie on Hunger in America, if you haven't seen it. It is staring Dr. Chilton and the Witnesses to Hunger. I play a bit role in it. It is absolutely clear about the causes and solutions to hunger. Someone got up after showing it and said, "If you just eliminated GMOs then you wouldn't have hunger." The other guy said, "With all due respect, that is a whole other discussion, but eliminating, or better labeling of GMOs won't do squat to do this."

The issue of scale that you raised is absolutely critical. Some of you are familiar with Growing Power, which is arguably the greatest single sort of community food intervention in the country in Milwaukee, which I would describe as a mid-sized to small city, depending on your definition. They are heavily, heavily subsidized. Their program, even though the guy has a McArthur Genius Grant, the head of it, Will Allan, and he deserved it, they

could not survive without heavy government and foundation subsidies. They are feeding only a small percentage of Milwaukee.

In my book, I talk about some urban gardener blogger who said, "why don't we have community gardens in Albany instead of SNAP." I calculated the fact that Albany has a very, very, very robust community gardening program. Yet, they are only feeding a microscopic part of what SNAP is doing. I don't know about you guys, but I like eating 52 weeks out of the year. Do you like eating every week, even some of you that fast once or twice, or on Ramadan until sundown? You are probably not voluntarily fasting for weeks at a time. All of these people sort of ignore that the vast majority of the United States has a thing called seasons.

Then if you are getting CSA stuff that is actually stored over the winter, all of this rhetoric that it has got to be fresh and picked that day really is bogus. Talk about the relative scale of the Emergency Food System. There are a lot of ways to calculate how much pantries and kitchens and food banks are distributing. I would say, at the greatest possible estimate, it is about \$5 billion worth of food a year. That is a lot. As you guys know, the federal safety net is 80 billion. Every morsel of food distributed by every charity in America equals one-

twentieth of the current spending on the Federal nutrition assistance safety net, even though you just saw maybe a quarter or more of people eligible for SNAP that aren't getting it. Large numbers of people eligible for school breakfast aren't getting it. Because WIC is not an entitlement, they are not going above the current case load.

Goodness knows if the Federal safety net was actually used, particularly the entitlement programs, there would probably be 100 billion dollars or more. It absolutely dwarfs the charitable food system, but that is not what the public sees. That is not what is in the media. That is not what regular people see. If you were to poll regular people about what they think the current response is, they would probably say that charities provide 20 times the federal government. They wouldn't know the absolute reverse is true.

What does this actually mean for research from the rhetoric to the practical? Let me suggest a number of very specific research questions. I think this whole area is critical because I give talks to groups of lay people. As I have said over and over and over again, they said, "Let the community do it, not the government." First of all, we need a better explanation to the government and to the public through research about how much of the community

response is government. I love the food bank networks. My best friends are food bankers. I don't say that in a patronizing way. Some are better at this than others, but many give the false impression that their network is entirely government-free.

By the way, this goes across the nonprofit sector. There is a big arts organization in New York that gets 70 percent of its money from government. Then they put out all of their marketing materials, "we don't get a dime from that evil government." It is just not true. As you know, a major source of food for food banks and soup kitchens and food pantries in America is government food. This is the Federal ETF commodities. Then there is the FEMA Emergency Food and Shelter Program, although that was slashed since the stimulus bill. That has been slashed under sequestration.

About half of the states in the Union have state food purchasing and grant programs for food banks. By the way every penny spent by a nonprofit group, if it came through a charitable deduction, it is subsidized by tax payers and nonprofits ought to do well to remind the country of that. The fact of the matter is people have no clue. When companies or groups take credit that they gave a grant to do some outreach to increase usage of the Summer Food Service Program, they often imply that the charitable

donation is actually buying up meals in the Summer Food Service Program, not giving the clear understanding that the meals were paid for by tax dollars.

Why do I think that is problematic as an advocate? Because it deprives the public of knowing that their tax dollars are going to something more favorable than a bridge to nowhere, or a war they didn't support. It gives the public the false impression that that charity is doing a lot more than it is. I think research could more thoroughly document even in the so-called charitable food distribution system how much of that is provided by government. We really need to look at the efficiency.

A few years ago, before the recession, I did a rough on the back of a napkin calculation. I calculated administrative spending in the SNAP program was about 15 percent. I redid that after the recession and found out that it was under 10 percent. Why? Because the case load dramatically increased. The amount of money spent on benefits dramatically increased. At the same time, most states and counties and cities actually maintained the same level of caseworkers or lowered them. If you really look at the entire Emergency Food System, from the money it takes from a national organization to acquire the food, to the money it takes that national organization to move that food to their central headquarters or distribution center.

Then the money it takes that national organization to move that food from the central distribution center to a regional food bank. Then the money it takes that regional food bank to move to a pantry and kitchen. Then the money it takes that pantry and kitchen to actually serve the food, there is 20, 30 40 percent administrative overhead versus less than 10 percent in the SNAP program. I want research more credible than me, because advocates aren't taken as credible, but universities and governments sometimes are.

I wish there would be more focus on really looking at the actual cost of it. Keep in mind food banking grew up around the time where there was a massive amount of surplus food. The greatest irony about food banking and food rescue is that as they have identified extra food, companies have gotten better at providing less food. If the system made sense 40 years ago when they were getting rid of the excess government cheese, and they were getting rid of food that literally would have been thrown out, honestly it makes a heck of lot less sense when a lot of these charities are buying food. The first secret is how much of their food is government's.

Their second secret is how much of the food they are buying -- If you use 5.00 bucks to buy the food to move it through three or four legs of the system as opposed to

giving people a voucher. By the way, I will tell my conservative friends the SNAP program is a voucher program that rewards private industry. We really ought to look at the efficiency of this. We ought to look at state interventions. There was a little back and forth about what Oregon did in response to finding out that they have extraordinarily high level of food insecurity. It is true that Oregon had one of the greatest statistically significant drops in food insecurity over a set period of time.

This is more than an academic question. A lot of governors have made commitments to end child hunger. They started a large national organization called Share Our Strength. It has basically put their entire anti-hunger strategy around this idea of getting governors to make this commitment. It is worth some research to determine whether they actually can make a difference. I think we need more research on whether communities alone can end hunger. I don't believe they can. I believe if you are a magically hunger-free community, they would have the biggest influx of people or out-flux of people, or whatever, since the dustbowl.

Some of you have heard prominent people claim that they were part of hunger-free partnerships for a period of time that entirely ended hunger in their

community. I would want to see how that is measured. I think it is important to see how that is measured. I do think we need a real significant discussion of scaling up these projects and whether some of these community food projects can ever be scaled up. I do not think Detroit can ever, ever, ever get 51 percent of their food grown locally. It gets even colder in Detroit than in New York. The smallest beautiful ethos really ignores modern economic reality.

When General Motors was a horrible polluter and they beat the heck out of strikers and paid poverty wages, every community didn't develop their own auto factory. We had a national intervention that made labor organizing more favorable, raised the minimum wage, and we had an environmental regulation enforced by the federal government that made these companies pollute less. This alternative that somehow we are going to have all of these small little farms on the top of every roof, I just don't think it is economically practical, and I think we need the research to prove it.

Honestly, in this realm, I think sometimes ideology and wish fulfillment overcomes the facts. I think we need a little historic look back on this. For people who tell, and people push back every time I say there is a government response. They say, "You don't understand how

broken government is, Joel. You don't understand how difficult it is." I do, but there is no other alternative. Show me a single time in history where community on its own, a small entity on its own, without leadership from government, has solved a massive social problem such as poverty or hunger. I would submit you can't, and yet I can find ways like in the 1970s when the federal government almost ended hunger in America. We need more research on that.

DR. ALAIMO: I just want to respond that the goal is 51 percent of fruits and vegetables, not all food, so that is a big difference. Have you heard of season extension? There is a lot you can do in winter time with growing food. It is a lofty goal. I think that having a lofty goal like that, though, actually moves you further. I agree with most of what you said, but I do believe that the food programs in terms of getting people connected to the earth can do a lot of good. Again, it is not the only solution.

DR. BERG: Just to be clear, I am not criticizing the programs, I am criticizing the rhetoric and the ideology that has grown up around the programs and the use of the existence of these programs as somehow an excuse that we don't have to have the broader wage and social services network.

DR. ALAIMO: I am not going to disagree with that.

DR. FRANK: Katherine had a lovely throwaway line which I started to reflect on, which is "How many of the donor people to the Emergency Food Network have food insecure workers?" You said that, right? The other thing that hit me is how many of them are involved in negative nutrition education. The amount of money and the technical quality of our nutrition education compared to the garbage food advertising, especially to children. I don't know what the order of magnitude is, but that would actually be an interesting research question right there. I think we don't pay enough attention to the negative education that bombards our families, bombards our children. It is targeted to our ethnic minorities very specifically. Where do you see children of color? In fast food ads. I just want to bring that up as something that is actually quite researchable, but not by me. I love bringing up research projects I can't do. I know that there are people who know how to research media.

DR. ALAIMO: I don't have anything to add. That was excellent.

DR. PEREZ-ESCAMILLA: Thank you so much to both of you for your real-world, on the ground presentations. This is where I would like to say the rubber hits the road.

I could not agree more, Kathy, with each of your recommendations for future research. I would like to add another one which is the development of sound business plans that could make the local food systems and treatment approaches work. For this approach to work, the farmers need to make a living also. The store owners need to make a profit even if it is small. The price has to be reasonable for the consumers. The cost to government cannot increase to the point where it politically becomes impossible to do. I don't know if that research exists, or if anybody is working on it, but it would be extremely useful to do that work or release that work for decision makers to understand them and be confident that there is a way to actually make this happen and be sustainable.

DR. ALAIMO: I agree, and I also think we heard this morning somebody made the point that we can learn from international studies or from other countries. I actually think we could learn something from the fair trade movement that would speak to your questions because cooperatives and growers are able to argue for a better price for their products. I think there are lessons that we can learn from those movements and also cooperatives where growers can participate in not just selling their tomatoes, or whatever, but also owning the processing company where they

can capture a larger percentage of those profits that are made when it is sold to the final consumer.

DR. BERG: I just want to echo that point. I have written that paper. You can get it online from the Policy Institute. It is called Good Jobs, Food Jobs. I basically make the argument that real money and room for growth in urban and agriculture-related issues isn't in growing the food or selling the food. It is in processing the food. The economic folks here can talk about the importance of value added, but I think in food, there is a lot more room for that. Manufacturing jobs generally pay higher wages than those in other sectors. I think that is the real room for growth.

SPEAKER: This is just a comment, which is that the presentations may have given the impression that these two perspectives are antagonistic in some way. That is absolutely not the case. They both have their place. I am 100 percent with Joel on the need to address the root causes. I am also 100 percent with Katherine on the need for community supported agriculture and for community-based food system reform. They are not one versus the other. They are all part of the same process.

DR. JONES: On that note, I think we will end the session. Let's thank our panelists.

(Brief recess)

**Session 5: Public Policy Responses to Hunger**

**Moderator Judith Bartfield, University of Wisconsin**

DR. ZILIAK: For those of you who are on the Steering Committee and are presenters and discussants, you received an email about a dinner tonight at 6 o'clock in the Ambassador Room of the State Plaza Hotel, which is just up 21st street. That is at 6 o'clock. That is for speakers and discussants. Without further ado, we have Judi Bartfield who will be the moderator on the last session, Public Policy Responses to Hunger. Judi is a professor in the Department of Consumer Science at the University of Wisconsin. She is the director at the Institute for Research on Poverty and Food Security Research Innovation and Development Grants and Economic Program, the RIDGE Program which is funded by the Economic Research Service in USDA. Her research areas are in the broad areas of food security, food assistance programs and child support and the economic well-being of single parent families. I will turn the session over to Judi.

DR. BARTFIELD: Thank you. We have got hopefully a great last panel, if everybody can hang in there through one last push. I am going to introduce everybody at the beginning, and then we will get started. Our main speaker is Dave Ribar. Dave is a professor in the Economics

Department at University of North Carolina at Greensboro.

His areas of specialization include labor economics, demographic economics, program evaluation and applied econometrics. His research is focused on food assistance and impact, food insecurity, the long-term implications of Welfare Reform and the food safety net.

Then we have two discussants. The first is Lara Shore-Sheppard. Lara is a professor of economics at Williams College and research associate at National Bureau of Economic Research. Areas of specialization include health economics, labor economics, poverty and Welfare policy, and wage distribution. She is currently involved in a project investigating how the structure of benefits for five major safety net programs that affect low food security in families and very low food security among children.

Finally, our last speaker is Jim Weill. Jim has been president of Food Research and Action Center or FRAC since February 1998. Jim has devoted his entire professional career to reducing hunger and poverty, protecting the legal rights of children and poor people and expanding economic security, income and nutrition support programs and health insurance coverage. Prior to joining FRAC, he was at the Children's Defense Fund as Program Director and general council.

Please join me in welcoming our panel.

**Speaker: David Ribar, UNC Greensboro**

DR. RIBAR: Thank you to the committee for the opportunity to work on this project. This has been a lot of fun, and it is has especially been educational to hear the presentations today.

Just to give the punch line right away. This is a quote from a paper by Mark Nord and Lynn Parker. "With one important exception, the major determinants of food insecurity are fairly well understood. The exception is the effects of food and nutrition assistance programs." The talk that I am going to give today, I am going to go through a conceptual model very quickly. Next, I am going to give a description typology of public and private food assistance programs. I will talk briefly about the evidence on program effectiveness. I will talk about program gaps and then talk about methodological gaps and then move on to recommendations.

Dr. Gundersen earlier had talked about developing conceptual models. We actually have a pretty decent conceptual model that was put out by Chris Barrett in his Handbook Chapter in 2002. The conceptual model helps understand how children get fed and why some go hungry. It also directs us where to look in terms of where programs

might be able to help. It also points us to where we might face challenges in terms of program effectiveness.

The model adapts Becker's household production model. It is also very similar to Grossman's health production model. What we will assume is that we have got a household that faces a lifecycle utility function. In each period, it has two objectives. One is to advance its physical well-being. The other is that it likes to consume other things as well. It is going to have a preference function that is defined over of these things. The preference function is nice because that allows us to incorporate issues about tastes and culture. The household in this case will discount the future and that future will be uncertain.

There are going to be two production functions here. First of all, physical well-being doesn't just magically appear. It appears on previous stocks of physical well-being. It is augmented through inputs of nutrition. It depends on activities that the household members take. It depends on other nonfood consumption. There will be other items that could go in. It also depends on shocks. Nutritional inputs themselves also don't magically appear. They are produced with inputs of food and time. The effectiveness of those nutritional inputs may depend on member's health. The (interference)

is going to be conditioned by the member's skill and information. The household faces constraint. It faces a lifecycle budge constraint with per period spending constraint.

The constraints may include non-tradable items. Community gardens may contribute to the budget constraint. There may also be a household borrowing constraint. Health might also interact with the budget constraint by affecting productivity. There are per period time constraints, and there are constraints or conditions within the model for minimum levels of survival, non-impairment and good health. What are the outcomes?

Well, the household in this model chooses work and activities and the consumption of food and nonfood items. Through its decisions, it might achieve one of three levels of food security, either food security consistent for survival for non-impairment or for health.

Survival and non-impairment are usually issues focused on development countries and the in the U.S. we typically focus on good health. Within this standard vanilla framework for household decision making, what are the identifiable threats? One is low labor productivity, so limited ability to work or to earn means that there are less resources that are going to be available. Adverse terms of trade, so for a given level of work or abilities,

you might not be able to command a very high wage, or you might face high food prices. You might have limited food access, which we discussed in a previous section. There is also the possibility of asset poverty and borrowing constraints. Then the household outcomes will also depend on both public and private safety nets, so the social networks that we discussed before.

There are other things that put households at risk in this dynamic framework. One is operating close to one of the constraint levels. If you are operating to a constraint level, a bad shock may push you under a constraint level. Another thing is a social or an economic susceptibility to adverse shocks. Some people are in positions where they are more likely to face shocks than some others.

Then adequate own insurance may increase the risks. We have already talked about coping strategies. Coping strategies complicate measuring hunger, because households will take numerous activities to essentially avoid hunger. Even if a household faces a bad shock, it is going to be a while before that shock is actually transmitted to a hunger outcome.

Nowhere in this, have I mentioned children. The general model really doesn't pay too much attention to children or their circumstances. Children are especially

vulnerable in this type of a model. Children have limited capacities to work. They are dependent on other family members. They have little or no ability to influence decision making, and this capacity and dependency will vary with age. Again, in this framework, children are very, very vulnerable.

What the standard model assumes instead are caring and capable parents. The standard economic solution is that parents are both rational and altruistic. This leads to what we describe as Ricardian results. Parents will be protective of children. Again, this is going to mitigate the relationship between shocks or programs and the outcomes for children.

In particular, if the government doesn't step in to help children, parents generally will fill the gap. Conversely, if the government withdraws support, parents may withdraw some of their own support in response. Again, this leads to an additional food security coping strategy of children typically being the last to go hungry in a household. There is strong evidence that this is the typical behavior in households. It is not necessarily the only behavior in households. We could think of other models or other examples of types of parents, and Mariana discussed that very effectively before.

Although we assume lots of capabilities, parents could have limited food preparation capabilities or have it. Parents might have parenting problems all of their own, maybe brought about by bad circumstances growing up. Craig earlier discussed financial management problems. Children themselves might present problems. There might be a vicious circle here where food problems caused bad outcomes for children which make them harder to parent.

In terms of evidence on these general threats, we have pretty much covered this ground already. The standard things that have been discussed today are general threats. How does food assistance help? There are three general types of food assistance strategies that are used in the U.S. One is a general supplement to a household's food resources or general resources. What this does is just effectively lifts the budget constraint and gives households more opportunity to produce good outcomes for their children. Another strategy is instead of relaxing the general budget constraint or the general resource constraint give households or give individual members specific types of foods, so generate the nutritional inputs directly and give those to children.

The advantage of this particular type of program is that it is easier to target. So these benefits can go directly to children. It is a little bit harder for people

to undermine those. Yet another strategy is just to make households more productive with the resources they have. This is how educational programs work. For a given level of resources, you can do more with those resources or produce better outcomes. We see examples of these in the major systems programs in the U.S. This is the big five for the U.S. starting with the SNAP program which provides general resources, but is now increasingly also helping with household efficacy through education programs. This is a non-targeted program. We have the two school meal programs, the school lunch and the school breakfast. Instead of general resources, these are specific resources and they are specifically targeted at children.

There is the WIC Program, which also is a specific foods program. This incorporates more of an educational component as well as targeted at expecting mothers, mothers and then children up to age 5. There is the Child and Adult Care Food Program, again specific foods targeted at preschool children. Different types of programs, different types of targeting. These aren't the only programs.

I described it in my notes as an alphabet soup of programs. Some of these programs are nice in themselves. We have talked about the Commodity Supplemental Food Program which provides specific foods, but there are other

types of programs that are here, some actually to fix holes created by the other programs. For instance, the WIC Farmers Nutrition Program, which addresses a hole in the WIC Program.

Now, one thing that we haven't talked about is how food assistance that begins with the federal government actually makes it to households. All of these programs are administered by local governmental organizations or in some cases by community organizations. The federal government provides the resources, but the state, local governments and school food authorities are the ones who actually run the programs. Again, this is an opportunity, but it is also a weakness associated with these programs.

The states, although they don't fund the programs directly in general, contribute substantial amounts of administrative resources and in some cases fund modest supplementary programs. For instance in my state of North Carolina, the state on its own funds a universal free school breakfast program for all kindergarten students. D.C. has just moved to universal free breakfast in its public schools. Washington State, seeing a hole in the assistance for immigrant families, funds a special supplemental program for immigrants. Numerous states have commodity support programs.

There is also private assistance, and we talked about this in the last session. This private assistance, the only thing I will say here is that it also depends for a large amount of assistance from the federal government. This leads to a very complex food assistance landscape. Depending on where children live and where they attend school, there may be lots of potential resources and lots of flexibility, but there is also substantial scope for overlaps and scope for inefficiency. The landscape itself is uneven. It depends on the state and local governments. If state and local governments don't apply for these grants or don't run these programs, they don't operate. In some sense, we leave children at the mercy of the state and local governments.

We tend to highlight what the best state and local governments are doing with the flexibility that they are given. We tend to overlook the crappy local governments that don't do anything, or do worse as some legislatures in my state are doing, where we operate charter school programs, but we don't require charter schools to offer school meals. We don't often require them to provide transportation assistance. Surprise, surprise, what we have springing up in North Carolina are a set of charter schools that are becoming racially segregated, moved outside of communities and effectively discourage the

attendance by poor children because they don't offer any nutrition.

Programs that offer voucher assistance to private schools also have the same effect, if the private schools aren't required to provide this type of assistance. In some sense, these assistance programs are effectively being used as a screen against some children in our communities.

Evidence on effectiveness: I already gave that away. Do existing programs prevent food security and hunger? Again, the emphasis here is on existing. We know they don't. The answer here is clearly no. We have already seen evidence that even with this 100 billion food safety net that there are many examples of children living in households with very low food security among children. Even in the households that are receiving benefits, we see high levels of reports of food problems. We have got prima-facie evidence here that the existing network has holes. These are the people who have fallen through the holes.

Now, a separate question is do the existing programs reduce food security in security and hunger? Here, the answer is probably. It is hard to imagine how you can give children and households food and it not help in some way, but despite that the evidence is surprisingly weak. If you run just simple descriptive comparisons of

households that are receiving benefits versus households that aren't receiving benefits, you get the perverse results that the households on assistance tend to report higher levels of food hardships than others.

These negative associations extend into many multivariate studies as well. There are more sophisticated studies, and there are excellent reviews. One thing that the panel has as a resource is a whole series of very comprehensive reviews that have been done on food security and programs generally, but also specific programs as well. There is evidence in particular studies that food assistance programs increase expenditures on food, but these expenditure increases are less than a dollar for a dollar. There is also evidence of consumption and specific nutrition effects, especially within the WIC Program, although I can find two authors that would dispute that pretty strenuously.

When we get to food insecurity and hunger, the evidence becomes more equivocal. For instance, in a recent review, Coleman, et al, described evidence from a small number of WIC studies as mixed. A recent NAS panel took a more positive view on SNAP, but I think they looked at through rose colored glasses. They pointed to a handful of studies that gave the correct results, but tended to overlook some other studies. I think they overlooked the

role of publication bias. It is very hard to get a study published now with the other result. The studies that they may have looked at may have been examples of torturing the data until they confessed.

Programmatic gaps: They are standard program gaps that we look for in assistance programs. One, Is the benefit of the right size? Is it big enough to do the job? Secondly, do the programs cover the people that they should cover? Finally, how do you get people into the programs? In terms of sufficient benefits, there is another NAS panel that is beginning an analysis of benefit adequacy in the SNAP Program. When we look at the other programs, the other programs aren't intended to feed an entire household. WIC is a supplementary program. School lunches, school breakfasts are supplementary programs. They alone are not intended to address the problem of hunger. SNAP is, and there is a question about whether SNAP benefits are adequate or not.

The main questions in terms of the adequacy of the SNAP benefit are the unrealistic assumptions in terms of time preparation that are required to convert the raw ingredients that you basically have to buy for SNAP into actual food and the way that the Thrifty Food Plan is constructed. When you take the cheapest of three plans

that are supposed to get you to a nutritional adequacy, you are cutting things pretty thin at that point.

In addition, there are coverage gaps. We know that certain households are not eligible for SNAP. For instance, certain immigrant households, but we have also created other rules to make sure that people don't get access to food. We know that there are limitations on the use of EBT benefits. Not all retailers can provide benefits to SNAP households.

Moreover, it requires some potentially expensive technology. School and childcare meals are limited to enrolled children and they are generally only provided when the children are in school, and for some of these programs, they are not offered at all schools. We still don't have universal coverage of the school breakfast program in all public elementary schools.

WIC, as has been mentioned, is not an entitlement, although this has been less of an issue in recent years. We also know that there are problems with take-up, and those have been mentioned earlier. There are three primary explanations that have been given for insufficient program take-up. One is that households just may not know that they are eligible or may not have the information to apply. There is evidence that when you give households some more information then they do take-up the

program. We also have evidence that there are administrative burdens that households face.

In work that Marilyn Edelhoch and I did, while you might think that the administrative burdens might detour the people who are the least eligible so the least likely to benefit. It turns out that a lot of people who end up leaving the SNAP Program because of administrative hurdles are actually lower in the income distribution and face substantial challenges and unstable circumstances. We are moving off some of the people who would least benefit, but also some of the people who might most benefit.

Stigma: In other work that Lauren Holdiman and I did we have taken a look at Universal Free Breakfast. Universal Free Breakfast, so not charging for paid meals for reduced price meals increases participation for those kids. Economists take heart. When you reduce the price of something to free, more people participate. The amazing thing from these studies and the most consistent result from the Universal Free School Breakfast Studies is that Universal Free Breakfast increases breakfast participation on the free eligible children. In our study, that participation went up 7 to 13 percent. The main explanation for that is they faced a reduced stigma.

When you have an eligibility-based system, everybody knows who is going into the cafeteria and why

they are going into the cafeteria. When you open it up to everyone, or better yet serve it to everyone in a school classroom, there is no longer the stigma attached with it. Then in addition, like I said, we have got this whole long list of programs which necessarily leads to program complexity.

Household behavior also will alleviate the influence, and it happens again from both ends of the caring and capability distribution. On the one hand, we get the Ricardian results that I was describing before where parents being protective will mediate the effects of withdrawals of support. On the other hand, certain types of support like SNAP and WIC require a great deal of capability on the part of parents. If parents lack that capability, they may not be in a position to convert the systems that they are getting into nutritional outcomes for their children.

Issues with program complexity: This, again, will make it hard to judge effectiveness because people participate in constellations of programs. We typically don't model that in a lot of work that is done. One other thing to mention is complexity in terms of other systems programs besides food assistance programs; complex circumstances which have been described before. Food problems typically aren't the only problems that households

face. Although as researchers, we sometimes treat it as if it is the only problem they face.

There is evidence that food hardships appear with lots of other serious hardships. There is growing concern about SNAP households that have no other reported income. Also, SNAP among disconnected leavers. As has been discussed here, there is advocacy for looking in terms of food systems rather than at particular linkages within food.

Methodological gaps and challenges: The biggest challenge to examining childhood hunger has already been mentioned, and is low statistical power. With very small numbers of observations, it is hard to include the controls. It is hard to get precise estimates, and it may be actually hard to do the statistics right. A lot of the statistics that we do depend on asymptotic results when you are only looking at a few dozen yeses, you are actually in a mode where you can no longer rely on asymptotics, and you may have to move to exact statistics.

There are all sorts of issues associated with the measurement of food hardships and most of these have been covered in a previous NAS panel, and USDA is responding to this. There are some additional issues, and we have talked about some of these today. There is possible social desirability bias in admitting that you let your kid go

hungry and some things that haven't been discussed. There are extensive screens in the household food security module that assume standard coping strategies. For instance, you don't get to the child questions unless you have been screened into the module and unless you have identified some lower level problems.

There are several subsets of screens within the food security module. These have the effect of understating child hunger. They serve a good purpose, so they reduce the respondent burden. They screen out certain types of reporting errors, but they unambiguously hide some child hunger. They also presume certain coping strategies associated with child hunger. Then the measures themselves are typically used ineffectively. Often we use binary indicators instead of using the full range of scale or using other measures.

There are some alternatives. One that hasn't been mentioned so far today is the use of pantry inventory check lists. One advantage with the checklist is that it is a little bit harder for people to know exactly what you are asking about. Diary methods and inventory methods have less scope for social desirability. We have problems with the measure of food assistance participation. Again, this causes problems. I am an economist, and it took me this long to get to selection, but selection is an issue as

well. Another methodological challenge that complicates everything else is multiple program participation.

Economists you are the worst offenders here. You have one tool that you have, or one set of tools, to look at treatment effects. It is very good for binary treatments. What you do is you use that tool and ignore all of the other data associated with participating in other programs including nonfood assistance programs.

Recommendations: This is going to cover ground that we have gone through before. Improve the measures. One opportunity for improving measures and something that USDA has done before is to use a slip ballot design for the food security measure where one-eighth of the food security panel, typically rotation group eight from the CPS, gets asked one set of specialized questions and then everybody else gets the others with considerable overlap in the questions. This effectively is a test for certain types of problems.

We need to focus much more on the role of intermediaries. Federal assistance relies on government intermediaries, school authorities, local organizations and parents to supply nutrition. We typically don't look at these as actors in a lot of our models. We need to focus more closely on the household. Mariana's presentation

provided a lot of information about how households might or might not operate.

We need to focus on multiple program use.

Multiple program use is widespread, but, again, it appears in some studies, but not enough studies. We need to take a look at other programs and other problems. I think Lara is going to talk more about this. Again, as has been presented, these food assistance programs are helping in the context of multiple problems that households are going through. This is a big role for qualitative work, most because of the complexity that has been put here.

Finally, focusing on programs that directly help children, so, again, children are especially vulnerable in these models. Most children are doing okay. It is clear that some children are falling through the cracks. We should focus on programs that additionally build children's capacities in the situations where their parents or some other institutions may not be as capable. Thank you.

**Discussant: Lara Shore-Sheppard, Williams**

**College**

DR. SHEPPARD: While she is getting my slides up, I want to take the opportunity to thank the panel for inviting me. I am not ordinarily a food researcher. I am one of those people that were mentioned earlier as someone

who might be attracted to the field by the opportunity to do some research. I got funding from the University of Kentucky funding initiative along with some colleagues. When I was asked to be a discussant in this session, I said Well, I only have one paper about food security. What do I have to say? The people on the conference call said, you can actually talk about it from your perspective from the research that you have actually done.

I am ordinarily a Medicaid researcher and someone who works on case assistance. I am going to be spending a little bit of time talking about my research on multiple program participation and not just food participation but other programs. To give you a sense of where that literature is because it is not large literature -- that is one reason why I wanted to write a paper. It help set up my comments on where I, as someone outside of the field, see some possible steps forward for the research.

Just to give you a sense of where I am going to go, I am going to give you my perspective from the research that I did with my colleagues on the safety net more broadly thinking about some key questions on which I would like to focus and then going forward.

The research that I was looking at with my colleagues at Williams was the effect of the safety net programs on food insecurity. In this research, we looked

at how the structures benefits from five major safety net programs and effects of food insecurity. Those programs were temporary assistance to needy families, SSI, Supplemental Security Income. That is the alphabet soup that has to do with being disabled and not necessarily having a work history, and the Earned Income Tax Credit. Those were what we were going to lump into as cash programs. Health programs, so Medicaid and the Children's Health Insurance Program and then the food program, SNAP.

The goal in this research was to try to put together all of these programs at the same time, which is not something that people have typically done. We discovered one of the reasons why that was. Not much is known about the effect of nonfood safety net programs on food insecurity. You can think about this as being an important question because nonfood programs do expand the resources available to the family, but they require that that money be spent on food. They may change the allocation that the family puts towards food. In addition, enrollment in these nonfood programs can affect eligibility for, or enrollment in, food programs.

There is this interaction between eligibility for say TANF and eligibility for food stamps. As we were thinking about how to model these things that vary much came to the forefront in thinking about which of these

programs are going to be related. Sometimes you have positive benefit. If you become eligible for one thing that automatically puts you on to something else. It is more of a crowding-out effect, where you have eligibility for one thing, or are getting benefits from one thing, actually reducing your benefits from something else.

The overall effect of these program interactions is somewhat ambiguous. You have this income effect of giving people more resources making it possible to buy more or higher quality food. The substitution effect of saying we are going to give you more resources that are not targeted towards food and it might be that you have substitution away from food and purchasing other goods.

One thing I need to know here is that the approach that we are going to take is going to make the programs that we are able to study fairly limited. We need to be able to use variation over time and across states. It needs to be absorbable in national data, because it is Food Security Supplement and CPS that we are going to be using. That had the effect of cutting out a lot of things like the Child Tax Credit that doesn't vary across states at all, and also some things that are just very, very small that we couldn't see in the data. That is why we are sticking with these five.

Our general research design was to think about regressing the outcome of interest, which is going to be food security, or child very low food security, or some variety of these things from the Food Security Supplement, but more about that in a second. On the benefit, which is the level of benefits for which the family is imputed to be eligible, and that is going to be either overall, or when we look separately by program types. I want you to hold this model in your head as I go forward. It would be a stupid thing just to run this model and stop there. I think most of you would instantly understand why. There are lots of things we are not controlling for here, and there is this problem of reverse causality. There is this issue that families that are more likely to be eligible for these benefits are also more likely to be food insecure for lots of other reasons.

Thinking about how we measure the outcomes, we use the data from the Current Population Survey food security supplement. I don't really need to tell most of you guys here about this. This is information to me, but not to most of you. The issue that we face, however, in doing this project is that income measure that is available in that particular supplement is crude. In particular for us it includes the benefit income. When we wanted to think about what programs family would be eligible for, we

couldn't really use the income measure that was already in the data because that included the program. You would be getting it wrong.

What we had to do was match that to the earnings data that is collected in the outgoing rotation groups as part of the CPS. For some of the families, that was already in the December data, December outgoing rotation group, but for others we had to match forward, January, February, March.

The sample we ended up studying were families with at least one child, the reference person between 18 and 64. We had to cut out studying immigrants. We started out having them in there, but it proved so difficult to model how these programs affected immigrants. In particular, the information was just not there in CPS that we needed more about documented status, or how long you have been in the country.

We ended up having to cut them out. I am not saying we won't ever go back to them, but in the short run with Jim cracking the whip on us, it proved too difficult to do in a short time period.

Let me focus on single parent, low income families because those are the ones where we found the highest instance of food insecurity.

Benefits: What we did to figure out who was eligible for what was that we built calculators for the eligibility or benefit levels for these programs using the program rules and trying to account as carefully as we could for the interactions between the programs. I would be happy to talk with anyone more about this later.

For now, I just want to point out that we basically fed the data through a series of calculators or we tried to make sure the order in which we did it accounted for any possible program interactions. At the end of the day, we had a prediction. How much would this family be eligible for?

This is just a map or graph of the various different state levels. I realize it is tiny. I apologize, the top one is California, in case you are curious. This is showing that there is variation over time across states, which is what we are going to leverage off of to think about these effects.

The issue that we ran up against is that these benefits may be endogenous. In particular, families that get higher benefits are also more likely to be food insecurity for lots of reasons that have been talked about today. In order to get at this, we are going to use a method that is common among economists, especially economist who are on Medicaid like I do, which is to say

what is the average benefit for a family like you where I define like you as being demographics and state and year cells that are arguably exogenous.

For those families, what is the average level of the benefits and then use that that is uncorrelated with the individual family, things that might be affecting their benefits or their participation and use that as an instrument. The idea is that that abstracts from these differences, both in population characteristics and in the individual shocks.

The variation that we are using is at the state/year demographic cell level. This is just to prove to you that in fact this instrument is in fact correlated. That is positive and statistically significant. That is all I need to show you.

This is a patient. In order to do this, for those of you who are keeping count, we have already got the December through March rotation group month. We are going to add in another CPS. We are going to use the March, because that is only the place where you can see participation in all of these programs. In addition these other CPSs we added in March, we looked at whether in fact our predicted matched up with actual. We are saying this is what you could be getting, how well does it actually say

what you actually report getting into March. We use the ID strategy. We find that in fact does.

Instrumented eligibility does in fact predict participation so that our calculators appear to be doing a fairly good job of saying what these families would be eligible for. They were actually some interesting cross program effects that I don't really have time to talk about, but, again, if you corner me afterwards, I am happy to chat.

We also use a two sample IV estimator to look at program participation and food security. We are sort of taking all of the data sets and putting them together. This is just to prove to you why in fact we need this instrument because in fact more benefits is positively correlated with food insecurity. We have families that are imputed to get more benefits are also more likely to be food insecure. This is why we need an instrument.

When we actually use the instruments, in fact, the sign reverses which is what we hoped to be true. In fact, we find that raising the combined benefit for which you are eligible by a 1000.000 dollars reduces low food security by 1.9 percentage points on the basis of 33 percent. To give you a sense of what that is, the median package of all of these things, cash and food, was 3,400.00, and that leads to a 6.5 percentage point

reduction in low food security. This is suggesting that there is an effect of the cash and cash and food benefit combined.

Interestingly, and this is a huge disappointment for me as a Medicaid researcher. We found no detectable effect of Medicaid on impact specifications. It was the wrong sign. We are not quite sure why that is, but it doesn't appear to be the case that giving people more health insurance, at least in this time period, no predictions about the Affordable Care Act that did appear to reduce low food security. We couldn't reject that cash and food had equivalent impacts. You can see that we separated it out by programs. They are all roughly the same magnitude, and unfortunately they are all the same sign. In this particular specification, SSI and SNAP are the ones that are coming in independently statistically different from zero, but you cannot reject that they are all equivalent.

This is about participation. We are using two samples. We are using the March data. We reported participation. We are instrumenting with the eligibility. Here we find, as you would expect, a large effect. In this case, it is not eligibility, but it is actually participation here with a four percentage point reduction from actually participating in the program. The

conclusions that we take from this is that a more generous cash and food safety net does reduce low food security in families with children. Because we were doing this research for the University of Kentucky grant program, we were also looking at very low food security among children, and we found nothing, but more about that in a second, and larger effects from actual receipt where no evidence that the distribution between cash and food appears to matter. No evidence for an effect of health insurance.

A key point is that we had insufficient power to draw more detailed conclusions. Some specific issues noted from our research. First of all, we were unable to say anything meaningful about very low food security among children due to the low statistical power. Now that is a good thing and a bad thing. Obviously it is a good thing because that means there is not so much of it in the country. That is good. Given that we were tasked with looking at it, it was a bit frustrating. There are only 622 families out of the 91,482 in our 10 year pool sample that were child very low food insecure. The obvious thing would be increase the sample size. If they asked me to say what I would want to spend 10 million dollars on, more data.

Immigrants face a more diverse and complex set of rules that proved very difficult to model for us. In the

realm of what I would like to add, one thing would be nice to know would be at least time in the U.S. because a lot of the state rules require knowing how long you have been around, when you arrived, that sort of thing. It seems like a fairly simple thing that might be able to be added. I understand that asking about documented status would be a bit more difficult.

We had to jump through a lot of data hoops to try to put together a measure of food insecurity, family economic circumstances and program participation. When put that way, it doesn't seem like you should have to jump through a lot of data hoops. It is basically saying we want to look at food insecurity as a very important outcome. We want to think about programs that we spent a lot of money on. How come you can't just look at in a single data set? Why do you have to do all of this elaborate, two sample and merging, and that sort of thing? One possibility would be to make linking easier and more direct.

One problem is the temporal distance between December and March. Maybe we can figure out some way of shortening that. I realize that March is very burdensome and December is very burdensome, but maybe even smushing them together so that one was in February, maybe that would be better. The December to March match is in a quarter of

the sample, so you can't really look directly at it, so we will be making it somewhat larger.

Finally, you can really get stuck at a lot public programs because there is not much usable variation. So if you are stuck with thinking about state variation and there is not variation across states, how do you get a credible causal estimate? I don't have any particular solutions for them.

More gaps: Thinking about how the public safety net combines with the private safety net. For example, economists have thought a lot about crowd-out. Dan Hungerman has written a paper looking at specifically religious or charitable organizations. In crowd-out, one question might be how that is different from food assistance. We are thinking it is just with the public safety net, but maybe the private safety net has some interesting interactions. We don't really know what happens inside the household and this has come up many times today. Why are some households considered low food security, while others are not?

In the structure of the U.S. safety net, it became very clear to us as we sat down and tried to figure out whether someone would be eligible places a huge premium on parents who can manage complexity. We are trying to get a sense of what is going on inside the household.

Variation and low food security status within the year. If you are only measuring it once, you don't really have a good sense from the CPS whether it is worse in the summer when there is no school or winter when you have got the heating issue. There may be some additional measurement across the course of the year.

As a health economist, I was really struck by how relatively little we know about how resources are translating into nutrition and health. It seems to be me it would be useful to have better measures of how food outcomes that we do measure like food security play into things like hunger and nutrition at the individual level in this coincidence of obesity and food insecurity, and possibly some kind of role for parental and child education. I will be a little vague here, as I am going to talk about it more in a second.

My data oriented wish list would be to combine resource measures, things about what the family has and what programs it participates in with nutrition measures. Right now, we don't have it in one data set. Multiple measures during the year, individual-based measures of insecurity and richer measures of household characteristics are in CPS, and more about this particular household. Potentially strengthening the length of the Time Use Survey, although I was chatting with Diane Schanzenbach

earlier, and she says that they are getting some results using the CPS data match, so maybe I am just being more pessimistic than the data warrants. I say if only the SIPP because the SIPP in so many ways seems like it would hold so much promise. I have worked with the SIPP for years, and it has many wonderful things about it. The recent changes have not done anything that would improve your ability to answer these questions. It runs squarely up against a problem that it is just not as large as the CPS.

Two big picture recommendations before Jim tells me to stop. One is experiments. These get around the problem that in many safety net programs, there is not much variation. If you have an experiment, by definition you have variation. The kind of experiment like the Massachusetts HIP is one example. In education in developing country context, this is where the research is. Important gains in knowledge are being made from this particular approach. Experiments could take the form of information provision, like a large scale version of Deponte, Sanders and Taylor's information provision that David mentioned earlier. This is potentially school-based to take advantage of the fact that the education community has been doing experiments quite extensively over the past decade. This is potentially randomization of additional benefits and along the lines of the HIP but more of them.

The other is to use the opportunity presented by the Affordable Care Act implementation. If you think about what you know about the affordable care implementation, there is going to be extensive information being gathered to determine eligibility from Medicaid and subsidies. If you read the details of how it is supposed to be done, it involves real-time linkages between employer databases and government databases and the instantaneous availability. There is no wrong door idea of whether this person would qualify for this particular subsidy or Medicaid. If this information that we are going to be gathering could be used to enroll in SNAP, that could eliminate a lot of the issues that are arising in terms of things like automatic enrollment or re-enrollment.

You could just be on a real-time basis being able to determine whether this family continues to be eligible or not. There is going to be a lot of information sharing across agencies because of the Affordable Care Act. If that could be somehow leveraged to thinking about how to keep people in SNAP or enroll people in SNAP. I think it also presents another opportunity, a better opportunity I would argue to study the connection between health insurance and food security than we have had to date. I am just thinking about Medicaid eligibility that we used in this paper. It was very small. The Affordable Care Act is

aside from the issues of states not taking it up; it is going to cover quite a large number of people. Potentially, that would be a useful place to go. Thanks.

**Discussant: James Weill, Food Research and Action Center**

DR. WEILL: I am the last speaker of the day. I want to thank the conveners for the opportunity to speak here today, if not for putting me last in the day. I don't have a Power Point. Like half of the people in the room, I went to Cornell, but I went before we were taught Power Point. I am going to talk about four categories of research that I think could be fruitful. First, I want to make a couple of points about things that have come up during the day that I am not going to be discussing in the four points, so I want to emphasize here.

One, the importance of state and local policy choices as they affect food security, not just as a help to experimental design, but as pointing a path towards what works in these programs and what doesn't. Mark Nord and others have done some good research on this and the implications for national as well as state decisions. Those implications are profound. We have de facto had a lot of good state pilots over the years and also a lot of really bad state pilots of policy, bad choices made by

states. We are not learning enough from either set of either the good or the bad policies.

Also, I think there is probably more state variation, sometimes than is picked up by the research community, and it may be a place where we need more interaction between the advocacy community and the research community which identify where all of that variation is.

Second, Kathy Alaimo gives a sweeping challenge to address the questions of growing inequality and household economic struggles. The importance of that simply can't be overstated. I am going to touch about some of this in my remarks. I really think it is crucial. Without addressing that question, even with all of the strengths of the nutrition programs, we are going to run a risk of asking the programs to do too much if we don't address the underlying economic programs. We are going to run a risk of largely rearranging deck chairs on a Carnival Cruiseline ship.

Third, I heard a conversation in the bathroom during a break. Contrary to stereotypes, not all of the good conversations at conferences are in the women's bathrooms. I overheard a conversation by somebody who I won't identify. He can choose whether or not to identify himself. This person said the best use of 10 million to address the causes and consequences of child hunger would

look at how to communicate with politicians in congress and spend the money there. I am not going to address that head-on, but I do want to put in an optimistic note.

I am going to talk a little bit about how to drive congressman, not a lot. I want to note that despite year after year of attack of these programs, and in particular on the SNAP Program, if you go back to 2012 and look at the first six months of the primary season, there were constant attacks on SNAP. Despite all of that, public support of these programs has held up incredibly strongly as shown in the polls. The 2012 attacks on the SNAP program didn't drive down support one iota. We are talking about while recognizing how research plays into these political programs; we are working against a very strong backdrop of public support. I have then wasted three minutes of my time on these ancillary remarks. I am going to start going into my main remarks. I will only be over by about a minute.

The four points I want to make are: One, we need to dig deeper into food security's adverse consequences and the role of public policy responses in averting such consequences. We have talked very little today about consequences. We need to talk about it more. Secondly, I am going to suggest some research that is particularly timely and important from the viewpoint of struggling low

income families themselves. Third, I want to talk about taking advantage of new opportunities created by recent policy and economic changes. New opportunities for research. Fourth, I want to focus on the immigrant family.

So the first category is looking more at the consequences to child development, health, school readiness, mental health, school achievement, adult work place productivity and so forth. This, of course, is the central and explicit part of Section 141 mandate that we are discussing today. Congress' interest in this area isn't accidental. Our nation's politics and policy is typical utilitarian. The idea that a child or an adult should not go hungry for moral or religious or ethical reasons has some resonance, but seldom moves policy or politics.

What has more impact, certainly not enough, is research and findings on costs and benefits. What are the outcomes of the increased prevalence or severity of food insecurity? How do the health and ability burdens that are associated with food insecurity affect private and public systems and private and public costs lead to reduced economic growth and other outcomes that have deep political resonance in our system? While consequences now come to have gotten less attention today, there has been considerable research in the past on these issues, from

Mark Nord, from Child Health Watch along with FRAC and Pew compiling the research. I think we need a new generation of research on the consequences of food insecurity.

The second thing is related to that is we need more research on the cumulative long-term human and social costs of allowing people to suffer food insecurity for extended periods of time or for several times during several years. Children's Health Watch has done a lot of research on this, and we need more and more longitudinal studies and qualitative studies. Some of the work that has been done by Judi Bartfield and her colleagues, by Mike Burke and his colleagues and by Children's Health Watch start to show a path.

We need more analysis as Children's Health Watch is started of marginal food insecurity's impact on health and well-being. There is more research that shows how detrimental marginal food security is. The more cumulative impact we can show on food insecurity in its various phases and on the consequences to children, the more we have hope of moving public policy which is actually the origin of the Section 141 mandate to USDA. Second, I want to just want to pass some new research that potentially can be done that focuses on public policy concerns that are particularly consequential or timely from the viewpoint of low income families struggling with hunger. In particular, there is a

need for more research on the problems of food security and nutrition impacts of the new low wage, part-time work contingent worker economy, not just in the recession, but well before the recession. Wages for workers with less than a college education were going down. Wages for young workers were going down, et cetera.

Some of the of the lost income and benefits have been replaced by the combination of the ITC and the Refundable Child Tax Credit by Medicaid, by SNAP, by CHIP, by school meals and childcare supports. That substitution has been inadequate, and we need much more research of the type Lara has touched on that looks at the impact on food security of the gaping holes that have been created by the change in the private job market and the resulting scramble but inadequate scramble of public programs to keep up.

Overlapping with that is the need to look at the impact of the change in the nature of low income work itself, the increasingly contingent nature of jobs, the increase in part-time work, erratic employment and nonstandard hours. Alisha has done some great work on this suggesting that there is greater food insecurity when wages come from nonstandard work arrangements. We need much more work in that area.

The area of special utility to beneficiaries, of course, is looking at the adequacy of benefits in the

programs, and particularly SNAP benefits. We haven't talked about that enough today. The Institute of Medicine's committee on this issue recently concluded that SNAP benefits are too low, and identified a bunch of flaws in how they are calculated. USDA has followed up by saying more research is needed. I would argue that we urgently need both research and action, but focusing for today on research.

As we likely face continued wage stagnation for the bottom third of the population, there is nothing more important in the food security arena than effective research to figure out how to make SNAP a more adequate support that will carry families including low-wage working families through the month and improve outcomes. This inadequacy issue underscores also the need to be cautious about overstating shortcomings and understating the positive impacts of the existing programs.

Those programs are the strongest strands in the safety net for kids, and they are crucial in preventing hunger and increasing food security. They certainly could be structured and managed to do much more. There are shortcomings in preventing hunger as shown in some research with mixed results, but some of that could well be the selection bias and much it is probably due to inadequate benefits.

Another area of importance to struggling families is the interaction of food insecurity, low wages, inadequate community and family resources, and stress, and the harm thereby caused both to parents and often through parents to children. Dave has talked about the need for research looking at outcomes inside the family black box. I agree, but I would add that we also need to look at how different family members are bearing differential shades of the health and mental health and behavioral consequences of household food insecurity in transmitting the impact back and forth.

The third general area I want to throw out here is looking at the area of recent policy and economic developments and the potential that they create for important research into child hunger and policy interventions. As Lara has mentioned, the Affordable Care Act is one place where there is huge potential. I would like to suggest a few others. Most important is the substantial boost to SNAP benefits that congress enacted in 2009 in the Recovery Act. That boost which was initially 13.6 percent in the maximum allotment may well, unfortunately, disappear this coming November.

Whether or not it continues, from a research point of view, the boost is hugely important as a source of potential information. We know from Mark Nord and Mark

Prell that the SNAP boost increased food expenditures and reduced food insecurity. We know from Children's Health Watch that the boost protected young children's health. There is much more to be done here to ascertain the impact of better benefits.

In addition to that, earlier there was mention of the pilot project with the summer EBT, SNAP-like benefits to kids over the summer. That really is a de facto increase in food stamp benefits for all intents and purposes, which has also been shown to be reducing food insecurity. We need to look at SNAP and SNAP-like programs and the improvements in benefits in those programs as a key mechanism to boost food security.

Some other things that have happened in the last few years that should be impacting food security and we ought to be looking at it are the 2008 and 2009 congressional actions to significantly increase the ITC value and particularly the value of the Child Tax Credit, the growth in participation in school breakfast has been mentioned a couple of times, which has been driven by policy as well as by the recession and by outreach.

Overall, the WIC food package and the economy meant an overhaul of school meal standards and so forth. The most significant change in the environment is the recession and its impact on family incomes and food

expenditures and the relation of that to food security and hunger is hugely important. The most recent data shows just one example that the median African-American family and the median Hispanic family spend less than the Thrifty Food Plan amount on food. This is true not just of SNAP families or food insecure families, but all families in these racial and ethnic groups.

We are unfortunately still in the middle of this huge natural experiment on joblessness, reduced wages and economic and food insecurity. The recession has been a tragedy, but we have to aggressively seek out the lessons to be learned from it. At the risk of throwing myself into the debate here between the economists and the non-economists, I am going to quote from Larry Summers who a couple of weeks ago asked this question about his profession in the wake of the recession. "Should we think of macroeconomics as being about cyclical fluctuations where the goal is just to reduce their size, or should we think of this work as being essentially about tragic accidents, where millions more people were unemployed for millions more person years at costs of trillions of dollars in ways that were avoidable." Summers said, "Unless and until we adopt the second view, I think we are missing what is our principle opportunity to engage in human betterment." I would argue here, albeit hopefully with a

lot less grandiosity that we should think about what we in this field can learn from the tragic accident of the recession with similar ambition.

Lastly, I want to talk just for a minute about how important it is look at the extent of hunger and the relation of food security to the public policy environment for families with immigrant members and for Hispanics as a community with significant numbers immigrant members. We know that hunger has spiked in the immigrant community after the 1996 Welfare Law terminated SSI, food stamps, Medicaid and TANF for almost all documented immigrants. Undocumented immigrants always were ineligible.

We know now that food insecurity in Hispanic households remains high. We are entering a period where it is likely, not certain, but likely, that immigration reform will be enacted that lets millions of previously undocumented people live here on a probationary legal status. Many progressive groups like FRAC are arguing for their access to key health and nutrition programs. I wouldn't be sanguine about the changes of that. What this means for today's discussion is that there is a vast potential for truly important research looking at the food security impact on immigrant families or the programs for which they are eligible like WIC and school meals, and the ones for which they are not eligible as well as the impact

on families which had mixed status and are eligible. Some people are eligible for some and some for others.

The stakes here involve today 23 percent of children in the U.S. who are living with immigrant families and presumably a larger share of food insecure children are living with immigrant parents.

By 2030, one-third of all children in the U.S. will be Hispanic. We need research on this question of how to assure that needy immigrant families can access benefits even if only some members are eligible. I will drop the rest and say that it is just hugely important to a third of the population. I want to thank Heather Hollingraft and Mike Burke and Gerry Henchy for helping prepare the remarks. We will have a discussion. Then we can all go out into the spring day.

DR. GUNDERSEN: I am kind of in an awkward position here because I am going to be telling one of the speakers that some of his remarks went against what he has done in his other work. I wanted to clarify. Maybe I misunderstood your remarks, Dave, but I think it is almost a stylized fact that SNAP leads to reductions in food insecurity once we properly address selection. As an example, your work with Holt and Moffett shows that, and even in your work with Moffett on the research on childhood

hunger program. You guys show, not even controlling for selection, that SNAP leads to reduction in food insecurity.

There are other papers we could talk about.

Those are the two that you have written. Then there is the paper by Brent Kreider, John Pepper, Dean Jolly and myself which came out in the Journal of American Statistical Association where if we just impose really, really relatively minor innocuous assumptions we show that food insecurity leads to up to a 14.2 percentage point decline in food insecurity. Maybe we are speaking about very low food insecurity that we don't have evidence of about. I guess I would say your own work and the work of others actually has shown that food SNAP does lead to reductions in food insecurity.

DR. RIBAR: I do stand behind the work. I think there are some nice things that we are able to do in that work that others weren't able to do. For instance, an advantage in the work we were able to do is we actually had longitudinal measure so we could use fixed effects controls. We also had multiple program use that we could examine in another study. We could also take a look at those response relationships which led to somewhat different results. Our study was unusual in being one of the few that came out in the anticipated direction. I think those studies are relatively unusual. I think that

study needs to be put in the context of a ton of other studies that were also carefully done that didn't get the result that we anticipated, but my study was good.

DR. NORD: I am kind of with Craig in suggesting that a lot of recent good, well-constructed studies actually are showing pretty conclusive evidence of the effectiveness and about the extent of effectiveness of SNAP, but that wasn't what I came to say. I just want to issue one tiny corrective so that it doesn't get repeated or worried about.

Since 2006 or 2007, whenever we changed the order of questions in the CPS Food Supplement, the asking of the questions about children's food security does not depend on how people respond to the questions about adult food security in any household with children. Essentially any with incomes under about 200 percent of the poverty line are asked initial three food security questions about children. Analysis where we have looked at the likely effect of that screening by looking as you get closer and closer to that income level suggests that there is essentially no bias on children's food insecurity caused by the screening.

DR. ZILIAK: As a member of the IOM panel that looked at the adequacy of SNAP benefits, for the record, I wear silver glasses, not rose colored glasses. I want to

underscore Craig's point because actually the rose colored glasses were leading into the point that I think kind of an objective of this IOM committee's view I think was fairly objective in the sense that it wasn't filled with people that were kind of direct contributors to the research on the effect of SNAP on food insecurity, or WIC on food insecurity. The perspective is that the most well-crafted studies did side on showing that these programs do reduce the likelihood of food insecurity.

It is true that there are scores of other studies that find potentially the opposite effect, but I don't think they are nearly as well constructed. I guess we will have to differ on this assessment of the literature. I will defend the IOM committee that the glasses were solely rose. I think it was pretty firmly objective view that our sense as a group of 12, that these were kind of the best studies that were available in the absence of -- so in dealing with selection and dealing with mismeasurement of showing people who participated even though they misreport that once you account for those factors that we do find pretty substantial evidence that these programs reduce the risk of food insecurity.

DR. RIBAR: To push back a little on that. The committee reviewed numerous studies. I may be mistaken, but it appeared that there were just as many insignificant

crafty studies as there were results that confirmed what we thought. I think what it points to are some severe methodological challenges associated with finding this. Again, it is very hard to argue that giving people more food doesn't somehow lead to better food results. We know what the anticipated effect is, but we have to jump through a lot of hoops to get those results.

DR. FRONGILLO: David, I wanted to ask about clarification of something you said early in your presentation. You were talking about Barrett's Model, and you kind of concluded that children go hungry less. I wasn't sure if you were saying that is a logical consequence of this standard so-called rational economic model or whether you were saying that there is evidence of that.

DR. RIBAR: It's a standard economic assumption. Standardly, the assumption about parents is that they are altruistic. This leads to within home crowd-out effect in the theoretical model. There is also evidence that children go hungry less. There are studies that have looked at coping strategies and the typical behavior is that the children do go hungry less.

DR. FRONGILLO: Can you say a little bit more about that evidence because I keep hearing that there is

evidence, and I look for the evidence, and I don't find the evidence. Tell me what I am missing.

DR. RIBAR: I may have to get back to you. I have got some sites that I have gotten my notes from, but I cannot think of them off-hand right now. I would say from some of the qualitative work seems to be suggestive of that.

DR. HIRSCHBERG: Jim, you mentioned the summer EBT for children project, and I just wanted to ask David and the audience. That focused on summer feeding. Folks who focus on SNAP and general food security issues may not have gone and looked over at that type of information. I would encourage you to do so because it is the product of \$85 million that congress gave us to conduct demonstrations with rigorous evaluations.

The point that you made that it shows in effect by extrapolation the SNAP at existing level plus impact of what might happen if one increases SNAP benefits to families with school-age children is very real. It used a very rigorous design with true random assignment that was being provided. The proof of concept full report is up on the web now. The results from 2012 are reported in the report to congress in summary form. The detail on that will be coming out sometime a little later this year. I would encourage everybody here to take a look at that, what

is there now and when the new report comes out, because it is a clear demonstration that very low food security for children in fact is susceptible to improvement through a known form of changing benefits. In this case, it was 60.00 for each school-age child in the household.

DR. WEILL: I sort of rushed through that because I was running out of time. I would just add to what Jay said. It is a great study for SNAP breakfast. It is a mixed study for summer food purposes. Ultimately, we think that kids are much better off if they are in programs over the summer. Funneling money into the family and in lieu of building programs where they can be fed meals and get mentoring and tutoring and activity is a Sophie's choice that we shouldn't have to make. We need to be doing both.

(Whereupon, at 4:50 p.m., the meeting recessed until 8:30 a.m., the following day.)