

**HIGHER EDUCATION IN AFRICA:  
MAKING THE LINK BETWEEN INTELLECTUAL  
CAPITAL AND REGIONAL DEVELOPMENT**

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**HEARING**  
BEFORE THE  
SUBCOMMITTEE ON AFRICA AND GLOBAL HEALTH  
OF THE  
COMMITTEE ON FOREIGN AFFAIRS  
HOUSE OF REPRESENTATIVES  
ONE HUNDRED TENTH CONGRESS  
SECOND SESSION

—————  
MAY 6, 2008  
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**Serial No. 110-232**  
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Printed for the use of the Committee on Foreign Affairs



Available via the World Wide Web: <http://www.foreignaffairs.house.gov/>

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U.S. GOVERNMENT PRINTING OFFICE

42-294PDF

WASHINGTON : 2009

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## HIGHER EDUCATION IN AFRICA: MAKING THE LINK BETWEEN INTELLECTUAL CAPITAL AND REGIONAL DEVELOPMENT

TUESDAY, MAY 6, 2008

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON AFRICA AND GLOBAL HEALTH,  
COMMITTEE ON FOREIGN AFFAIRS,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 10:10 a.m. in room 2172, Rayburn House Office Building, Hon. Donald M. Payne, (chairman of the subcommittee) presiding.

Mr. PAYNE. We will open the meeting hearing. Our ranking member will be joining us later. However, I think that we should proceed.

Let me first of all welcome each and every one of you, in particular our panelists today, as we have the Subcommittee on Africa and Global Health hearing as we will examine the state of higher education in sub-Saharan Africa, the United States' support for tertiary institutions on the continent, and the impact support for higher education could have on development in the region.

As we know, attention has been drawn to the increasing elementary education, and in particular to girl children. However, we really have to look at the totality of the educational situation in order to have the leap forward that we are looking for.

The numbers related to higher education in Africa are telling. According to the latest available data from the United Nations Educational, Science and Cultural Organization in 2004 there were over 230 million students enrolled in tertiary education institutions worldwide. Only 3 million of these students—of the 130 million—were in Africa. This is not because Africans do not want to attend colleges or universities. As a matter of fact, in my travels there, I have never seen an area of the world where education is more sought, even in refugee camps where people, rather than ask for medicine or blankets or food, wonder when an educational system will be set up, as we were asked when I first visited Darfurian refugees in Chad.

While the percentage of African students seeking college degrees has risen very slowly, from around 1 percent to 5 percent over the past 40 years, the gross number of students enrolling in African colleges and universities has grown dramatically over the past two decades.

As a former educator, I am convinced that formal schooling, at every level, has a transformative effect on the lives of people in

that country. And research has shown the positive impact that basic education has on development, especially when it comes to the education of the girl child. The more years a girl stays in school, as most of us already know, the more likely she is to have less children, to space them further apart, to see that they attend school—this results in a better quality of life for all concerned. If she is better educated she can have more positive employment opportunities, as we see many times women steered into unsavory types of businesses.

The United States is on the right track in terms of its support for primary and secondary education, appropriating nearly \$700 million for programs in these areas this fiscal year.

I am concerned, however, that while we have focused on basic education, we and other donor communities have lost sight for both the benefits of higher education, and the need to provide robust assistance for them.

For example, from 1985 to 1989, 17 percent of the World Bank's worldwide education sector spending was on higher education, but from 1995 to 1999, the proportion dedicated to higher education declined to 7 percent. We would think that as we moved forward we would see improvements, but we have seen a decline to just 7 percent.

Such neglect has had extremely unfortunate consequences. First, we have not met the demands created by increased access to basic education.

The New York Times published a story a year ago which detailed conditions at a university in Senegal. Students live six to a room in facilities designed to house two. They go to classes 2 hours early because there are 2,000 students in a single lecture hall. And if they arrive late, they cannot sit close enough to hear the professor.

The article pointed out that in 1984 only half of the children in Senegal attended primary school, but now nearly 90 percent attend primary school in Senegal. It went on to state that the African continent has the highest secondary school attendee growth of anywhere in the world. The high growth rate has created two problems of course, and they are obvious: One, overcrowded classrooms at the elementary and high school levels due in part to the lack of trained teachers and administrators; and two, a sharp rise in the number of students completing secondary school who want to go to college. And, of course, the higher institutions of learning cannot accommodate them. The higher education system should be able to address both of these problems. As the aforementioned example illustrates, however, African institutions are having a hard time keeping up.

The second consequence of overlooking higher education is that we have missed the opportunity to build indigenous capacity to address global challenges. Africa, as a region is the least equipped to deal with crises such as those created by HIV and AIDS and other infectious diseases, the spike in the cost of food, and climate change—all indicators show that Africa will be the worst hit by climate change. And Africa has least to do with the conditions that create climate change.

As a recent article in *Africa Renewal* points out, the region is lagging behind in the areas of science and technology. Africa is

home to 13.4 percent of the world's population, but only 1.1 percent of the world's scientific researchers reside on the continent. There is one engineer or scientist per 10,000 people in Africa. In industrialized countries there are 20 to 50 per 10,000 people. And African countries have the lowest number of medical doctors per capita.

Finally, through relative neglect of higher education, we have failed to support a critical catalyst for economic growth and development. A World Bank paper published in 2006 shows that tertiary education can have a significant impact in the area of "technological catch up," which allows countries to maximize economic output and close the gap between developing countries and those that are more technologically advanced. This may in turn have a profound affect on economic growth in the coming decades.

During the course of this hearing, I hope our witnesses will address the current state of higher education in Africa; the potential benefits of increased United States support for African colleges and universities; what type of support should we be providing them, and what potential pitfalls we should avoid as we look to strengthen our support for African institutions of higher learning.

I thank all the witnesses for coming today, and at this time I will move to introduce our first witness. But before I do that I might ask my colleague, the gentlelady from the State of California, if she would have any opening statements. Ms. Woolsey.

Ms. WOOLSEY. No, Mr. Chairman.

Mr. PAYNE. Also, we will ask Mr. Brad Miller. And he is anxiously awaiting the witnesses; so, therefore, we will turn to Mr. Franklin Moore.

And I would just like to say let me first of all congratulate you on your promotion to deputy assistant administrator for the Africa Bureau of the U.S. Agency for International Development (USAID). And our first witness is Franklin C. Moore, who has many years of service in USAID but has recently been promoted by the new director, Ms. Foye, to this very important position, long overdue. And he is certainly able to handle it.

This is his first appearance before the committee since the appointment earlier this year. And so we certainly bid him a warm welcome. A career member of the Senior Executive Service, Mr. Moore recently served as director of the Office of Environment and Science Policy within the agency's Bureau for Economic Growth, Agriculture, and Trade. Prior to joining USAID in 1998, Mr. Moore held positions in the areas of agriculture, environment and natural resource management with the U.S. Environmental Protection Agency where he was an international program specialist. He was Africare's regional agricultural business specialist in Zimbabwe, the Peace Corps' associate country director for agriculture in Ghana, and agricultural specialist and chief of operations for programming and training in USAID.

Mr. Moore also serves as a lecturer in the Agricultural Economics Department at Virginia State University and the University of Science and Technology in Kumasi, Ghana.

We are very pleased to have Mr. Moore with us. And before I ask him to begin with his testimony we have been joined by Mr. Tancredo from Colorado, and I would turn to him if he has any opening statements.

Mr. TANCREDO. Thank you.  
Mr. PAYNE. Thank you. Mr. Moore.

**STATEMENT OF MR. FRANKLIN MOORE, DEPUTY ASSISTANT  
ADMINISTRATOR, BUREAU FOR AFRICA, U.S. AGENCY FOR  
INTERNATIONAL DEVELOPMENT**

Mr. MOORE. Thank you, Mr. Chairman. Good morning to the chairman and to the members of the subcommittee. It is an honor for me to speak with you today about this very important topic, "Higher Education in Africa" and the U.S. Agency for International Development's experiences in this regard. Might I request that my written testimony be submitted in its entirety for the record? And I will take a few excerpts from that testimony.

Mr. PAYNE. Without objection.

Mr. MOORE. Thank you, sir.

With regard to challenges, I will not add much to what the chairman has already laid out for us. The chairman has included such things as the fact that educated mothers are more likely to have greater incomes, participate politically, have fewer and healthier children, to immunize them and educate them. He has also pointed out that given some of the changes that have occurred in basic education, although there are still millions of children that are not receiving basic education, it has improved greatly, and this has increased demand for higher education because of the large numbers of people who are completing secondary education, and the increased youth population.

With regard to challenges to African universities I would highlight two that I think are critically important that were not touched upon. The first is that many universities have inadequate working relationships with the private sector and other prospective employers and, therefore, are having difficulties training for needs.

Another area which was touched on lightly but I would like to highlight is insufficient applied and basic research capacity at African universities and ways in which we can improve that.

Given my time, I would like to go on to give some examples and some information on USAID's support to higher education. I would first say that USAID's efforts can best be characterized as a combination of institutional capacity building, participant training, and collaborative research, all of which are aimed at helping local institutions of higher education make greater contributions to social and economic development and improvements in governance.

At USAID, in collaboration with USAID missions in Africa, much of USAID's support to higher education in Africa is provided through the services of the Offices of Education and Agriculture in the Bureau of Economic Growth, Agriculture and Trade, my former bureau. I would also point out that there are examples where the Office of Development Partners has included tertiary educational institutions in several global development alliances, our public/private partnerships in Africa, and the Global Health Bureau has supported the leadership initiative for public health in East Africa which is aimed at strengthening the skills of public health practitioners to address the region's most pressing health challenges.

In the late 1990s, USAID began a competitive grant program that emphasized higher education's contribution to national devel-



opment programs through human capacity building and institutional strengthening. This program, now called Higher Education for Development, or HED, has implemented more than 300 projects and achieved significant impact in 61 different countries, many of which are in Africa.

If I might, I would like to give an example of the work of HED and its continuation. I was just recently in Rwanda. Rwanda is one of our missions who invested approximately \$3.9 million in an HED partnership between the National University of Rwanda, Michigan State University, and Texas A&M University for a program called Rwanda Partnership to Enhance Agriculture through Linkage. This is a partnership that our mission was interested in undertaking in Rwanda in the coffee industry. As people might know, Rwandan coffee has grown to be one of the staple selections of coffee for Starbucks. It is also one of the staple selections of coffee for Green Mountain and for several other specialty coffee companies.

This HED grant, which ran from 2001 to 2006, was intended to do as I stated earlier, that combination of institutional capacity building, participant training and collaborative research around coffee. When USAID began the coffee project with Rwanda the reality is there was more technical expertise in agriculture at the Rwandan prisons that dealt with coffee than there was technical expertise at the university. This project, which was a part of HED, has been followed up by a second phase that covers the period 2006 to 2011. In this second phase the two universities have switched; Texas A&M is the prime and Michigan is the subcontractor. This second award was a purely competitive grant. And this was the only university consortia that applied for it.

In terms of outputs of this project, not only have we seen the quality of coffee improve greatly but there are 20 students who have completed master's degrees, four of whom have gone on to Ph.D. degrees. And these students are with two Rwandan universities and the Rwandan Agriculture and Scientific Institute. Of the 20 students, 19 of 20 have returned to Rwanda. So we only lost one student to the United States in this example. This is an example, as I say, that really hits at those highlights of some of the best things that we, USAID, think we are doing with universities in Africa.

Over the past 3 years there are 11 USAID missions in Africa and four USAID Washington offices that have either invested or expressed interest in the HED program as a means to increase capacity both in-country and at the tertiary educational institutes. I would go on to say that between 2003 and 2007 USAID provided approximately \$79 million for capacity building and relationships like the one that I just laid out in a variety of sectors. I would point out that this figure likely underestimates the level of our support since a number of programs would not be captured.

Now that we have moved to our new FACTS system, we feel that in future we will be able to catch a situation where there are universities who have won an open bid and are implementing one of our projects. Up until this point in time they probably would have been lost.

With my time up, let me stop there and thank you for the chance to provide you with some information.

[The prepared statement of Mr. Moore follows:]

PREPARED STATEMENT OF MR. FRANKLIN MOORE, DEPUTY ASSISTANT ADMINISTRATOR, BUREAU FOR AFRICA, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Good Morning Chairman Payne and Members of the Subcommittee. It is an honor to speak with you today about this very important topic, “Higher Education in Africa” and the U.S. Agency for International Development’s experiences in this regard. The timing of this hearing is especially fortuitous, as it comes on the heels of our convening, with the U.S. Department of State and Department of Education, the “Higher Education Summit for Global Development” held on April 29 and 30, 2008. Following the Summit, which brought together over 300 University Presidents and Chancellors from the U.S. and developing countries—mostly Africa—private sector and foundation representatives, and U.S. government officials, USAID hosted a smaller Africa Region Post-Summit Workshop on May 1st to provide a more focused lens on the challenges and opportunities for the Continent. I will say more on this endeavor later in my remarks.

This morning, I would like to speak briefly about the challenges facing tertiary institutions in Africa; outline USAID’s efforts to address these issues, including what resources have been made available to support these efforts; and finally, what we envision for the future.

#### MAJOR CHALLENGES FACING TERTIARY INSTITUTIONS IN AFRICA

Sub-Saharan Africa is a continent full of promise and is, in many cases beginning to bear the fruit of investments made years ago. Economic growth rates of five to six percent, which exceed population growth in several countries, are translating into reduced poverty for millions. We are beginning to see HIV rates stabilize and in a few important cases, decrease. Although too many children are still out of school and the issue of quality remains, we know that efforts to reach the Millennium Development Goal of Universal Primary Education and Education for All targets have resulted in millions more children gaining access to basic education throughout Africa. We know the benefits of such schooling—educated mothers are more likely to have greater incomes, participate politically, have fewer and healthier children, and to immunize and educate them. This is a powerful foundation upon which to build.

What we now have is an increased demand for higher education due to the larger number of people completing secondary education, increased youth population in some countries and the residual effects of improved economies. Recent studies show that in order to break intergenerational poverty and to have transformative and sustainable development, higher levels of education are necessary. However, Africa’s tertiary institutions face tremendous challenges in providing such education and meeting the increased demand. Challenges include:

- Insufficient numbers of appropriately trained faculty using quality pedagogy
- Inadequately relevant curriculum, training and degree programs that fail to sufficiently address student and employer needs
- Inadequate working relationships with the private sector and other prospective employers
- Inadequate mechanisms to ensure access to poor but capable students and communities beyond urban cores
- Insufficient applied and basic research capacity
- Research agendas inadequately linked to the stakeholders and needs in various important sectors such as agriculture and health
- Funding constraints
- Infrastructure and Information and Communications Technology (ICT) constraints

#### USAID’S SUPPORT FOR HIGHER EDUCATION

In collaboration with USAID Missions in Africa, much of USAID’s support to higher education in Africa is provided through the services of the Offices of Education and Agriculture in the Bureau for Economic Growth, Agriculture and Trade (EGAT). However, tertiary education goals are advanced across the Agency. For example, the Office of Development Partners includes tertiary education institutions in several Global Development Alliances in Africa. The Global Health Bureau has supported the Leadership Initiative for Public Health in East Africa and a number of other Global Health programs engage tertiary education institutions as partners,

thereby benefitting the institutions in question. In addition, individual USAID Missions in Africa invest in local tertiary education as part of their efforts to effectively implement the Foreign Assistance Framework and achieve specific foreign assistance goals in the host-country.

USAID's effort can best be characterized as a combination of institutional capacity-building, participant training, and collaborative research, all of which is aimed at helping local institutions of higher education make greater contributions to social and economic development and improvements in governance.

In the late 1990s, USAID began a competitive grants program that emphasized higher education's contributions to national development programs through human capacity building and institutional strengthening. This program, now called Higher Education for Development (HED), has implemented more than 300 projects and achieved significant impact in 61 different countries, many of which are in Africa. Activities have been implemented in a wide range of technical sectors across the continent. Let me cite a few examples:

- In 2000 USAID/Rwanda invested approximately \$3.9 million in a HED partnership between the National University in Rwanda, Michigan State University, and Texas A&M University for the Rwanda Partnership to Enhance Agriculture through Linkages (PEARL). The partnership created a network of coffee grower cooperatives throughout the country, fostered the development of high grade coffee beans for the international gourmet coffee market; secured fair trade certification; and led to the creation of various small and medium sized enterprises linked to the coffee industry—revitalizing a weakened economy after the devastating genocide just six years earlier. Today, specialty coffees from Rwanda are sold at Starbucks and Green Mountain, and other specialty coffee companies are establishing business linkages in the country.
- A more recent example, in Nigeria, Kansas State University is working with the University of Lagos to bolster their capacity to provide high-quality, private and public sector-relevant courses for undergraduate and graduate students in the Faculty of Business Administration and the Department of Computer Sciences. This partnership is a component of and complement to a broader Global Development Alliance supported by USAID/Nigeria. The program evolved out of Nigerian, Microsoft, Cadbury, and Nestlé interest in building the capacity of local business schools. By working with these schools, USAID is strengthening struggling MBA programs, realigning curriculum with private sector needs, and linking graduates with attractive employment opportunities.

I would like to note that over the past three years, eleven USAID Missions in Africa and four USAID/W offices have invested or expressed interest in the HED program as a means to increase capacity at tertiary education institutions in Africa. Mission investors include Burundi, Ethiopia, Kenya, Nigeria, Somalia, South Africa and Uganda. In addition the Agriculture Office has invested in the program to conduct work in Angola, Kenya, Malawi, Mozambique, South Africa, Tanzania, Uganda and Zambia. Global Health invested in the program as well, fostering work in the Democratic Republic of Congo, Ethiopia, Kenya, Rwanda, Southern Sudan, Tanzania and Uganda. In total, work is being supported in fifteen countries.

We fully expect this interest and investment to continue increasing in the years to come.

In addition, since 2003 USAID has supported short and long-term training for more than 680,000 individuals in Africa. Such training has been provided in-country, in third-countries, and in the United States. In-country training is typically coordinated with local institutional capacity development which sometimes includes activities that involve local tertiary education institutions.

This approach reflects and builds upon the lessons learned from our previous investments under the Africa Graduate Fellowship (AFGRAD) program and its successor, the Advanced Training for Leadership and Skills (ATLAS). That program, with an investment of \$182 million over 40 years (1963—2003), reached out to 40 countries and trained 3,200 African professionals, many of whom are serving in key positions in their countries or at various donor and multilateral agencies. While the program was successful in many ways, the financial costs and lessons learned led the Agency to explore more cost-effective alternatives.

As a result, the broad objectives of the AFGRAD/ATLAS programs—which include the training of mid and upper level personnel to provide leadership and improve institutional performance—are currently advanced through a range of technical sector programs such as HED, Focus on Results: Enhancing Capacity across Sectors in Transition Countries (FORECAST), and the Board for International Food and Agri-

culture Development (BIFAD) Pilot Program, whereby tertiary institutions serve as providers and recipients of training and human capacity development programs.

In addition, the Agency integrates training and human capacity development with related institutional capacity development programs that address critical development problems in various technical sectors. This increases the results and impact of the training and fosters a more cost-effective use of foreign assistance funding.

USAID also supports the Collaborative Research Support Programs (CRSPs), which have provided more than \$29.2 million to support research capacity-building in Africa over the past decade (1996–2007). The purpose of CRSP is to harness the expertise of U.S. universities to provide programs that develop research, training and outreach capacity at tertiary institutions in developing countries and contribute knowledge, trained personnel and technology to agriculture worldwide in the fight against hunger and poverty. An illustrative example is the Global Livestock CRSP which strengthens the ability of institutions and individuals to manage risk related to livestock production; increase employment and incomes among livestock producers; and enhance the nutritional status of targeted populations. This CRSP develops and disseminates methods to diversify assets and link livestock producers to markets, rural finance, and public service delivery.

Finally, USAID engages higher education institutions as partners in a host of technical sector programs. For example, under President Bush's Africa Education Initiative (AEI), managed by the Africa Bureau, Minority Serving Institutions in the U.S. are working closely with African education institutions, such as Cheikh Anta Diop University in Senegal and the Universities of Cape Coast and Education University (formerly Winneba Teacher's College) in Ghana. These partners write, design and publish textbooks and other learning materials in host countries and train teachers in the use of these materials. While this effort is part of a basic education initiative, it adds value to and builds the capacity of tertiary institutions.

US Institutions include: University of Texas at San Antonio (TX), Elizabeth City university (NC), South Carolina State University (SC), Alabama A&M (AL), Mississippi Consortium for International Development (Mississippi State University, Alcorn University, Jackson State University and Tougaloo College), and Chicago State University.

#### US GOVERNMENT RESOURCES AND ACTIVITIES

With regard to total USG resources allocated to tertiary education support in Africa, I will need to limit my comments to USAID expenditures since we do not have sufficient access to the expenditures of other Agencies.

Between FY2003 and FY2007, USAID provided approximately \$79 million for capacity building at African colleges and universities.

However, this figure likely understates the level of our support since a number of programs that are not designated higher education efforts per se, nevertheless significantly involve or directly benefit African higher education institutions.

#### FUTURE PLANS

Despite these investments, we know there is much more work to be done. But we cannot do it alone. I began my testimony by referencing the recently hosted Higher Education Summit for Global Development and the Post Summit Africa meeting. When Administrator Fore announced her intent to convene a higher education summit in November 2007 during the National Association of State Universities and Land Grant Colleges (NASULGC) meeting, she spoke about the need to become part of a Global Development Commons: "a community of continuous and real time exchange, collaboration, partnership and action involving public and private donors, agencies, NGOs, businesses, the higher education community, host governments and civil society—at the intersection where all of our interests overlap."

The seeds of Administrator Fore's vision have been planted. We realize that if we are to make significant contributions to strengthening higher education systems and institutions in Africa, we must work with a diverse group of partners to broaden our collaboration and partnerships, expand emerging strategies and innovative programs, and solidify new and enduring higher education relationships for international development. This was the intent of the Summit and I am happy to report that we have begun this journey.

For example, the Administrator announced that USAID will partner with the Gates Foundation and NASULGC to support the Africa-U.S. Higher Education Initiative. The Agency also signed an MOU with the National Science Foundation aimed at improving research and research capacity in Africa. Finally, the Administrator announced the development of a new Agency policy on Human and Institu-

tional Capacity Development that will have an important impact on Agency support for tertiary education in Africa and elsewhere.

Thank you for this opportunity to testify before the Subcommittee today. I am happy to answer your questions.

Mr. PAYNE. Thank you very much for that interesting update on what is happening. And I think with the importance of agriculture in Africa, especially in light of today's commodity prices and problems, we ought to really focus more on agriculture in Africa because I think it is really under utilized at the present time. But I just have a couple of quick questions. Then I will turn to my colleagues.

The gross number of students enrolling in colleges and universities in Africa has grown dramatically, as I mentioned, over the past two decades. For example, in 1985 Ethiopia had just over 27,000 students enrolled in universities. Twenty years later in 2002, that figure was 172,000. That represents a more than sixfold growth in the span of 20 years.

Similarly, Ghana had only 9,000 college students in 1985. By 2005 there were over 110,000. There were 12,000-plus students attending tertiary institutions in Namibia in 2005, up from 1,500 in 1985. So in 20 years we have seen quite a growth.

My question is twofold. One, what impact has the increased number of students had on the infrastructure and quality of instruction at tertiary institutions in sub-Saharan Africa? And two, how, if at all, have our aid programs been adjusted to help African colleges and universities meet the demand caused by the expanding number of secondary school graduates?

Mr. MOORE. The first question, how have they contributed to an increase in tertiary education and tertiary educational institutions in Africa? We have just completed a higher education conference. And the last day of that conference was an interesting combination of chancellors, etc., from African institutions and those from United States institutions. I believe anecdotally that a fair number of them have mentioned the importance of now being able to draw faculty that is a combination of faculty trained outside of the country with faculty that is primarily trained inside of the country, and have looked at the ability that that brings in increasing their research and research that is more applicable to the actual needs of their populations and problems as they see them, because they are drawing a faculty that have a mixture of experiences.

So I would say that they have contributed greatly to a better understanding of what universities should be doing that is probably closer to a model of universities that are like our state land-grant universities.

The second part of your question: What has USAID done? I would have to say that in comparison to some very early years where USAID engaged in direct institution to institution capacity building, I think we have moved away from that model. I think where we have engaged in higher education it has either been in discrete projects where we have a clear understanding that capacity, that scientific capacity really does require that there be trained people in the country on the ground to complete that. As well as several programs that we have. I did not mention the CRSP, Consultative Research Program, which is an agricultural program that

over the past 10 years probably our estimate is has provided \$79 million worth of increased research capacity and partnerships between United States universities and African universities in the area of agriculture.

We certainly have some in health, both health that is financed by USAID as well as health that is financed by PEPFAR. And increasingly portions of that financed by PEPFAR are looking much more seriously at how one trains capacity in Africa on the ground to meet health needs.

So those would be examples I would give.

Mr. PAYNE. My final question would be this, and then I will turn to my colleagues. According to advocacy organizations, debt cancellation and foreign aid has helped put 29 million more African children in school this past decade than otherwise would have been able to go. And of course we know this is a very laudable achievement. But as I understand it, it has put some strain on the educational system, as I mentioned earlier, in some countries. So my quick questions are, one, how have countries been able to train an adequate number of teachers to cope with the increased influx—or, maybe better—have they been able to?

Also, how has the need for more teachers in the classroom impacted the quality of teachers and teacher training since there is such a need for so many?

And finally, what assistance are we providing through tertiary educational institutions to improve the quality and expand the number of teachers that we have in sub-Saharan Africa?

Mr. MOORE. Let me start with the capacity question. Yes, it is true that the increase in those who are completing secondary school and going on to university education has created tremendous strains in university education. We do have—I can give some anecdotal evidence of changes that African governments have made themselves. If one looks at Ghana there was the old Winneba Teachers Training College. It has become, I think its name is Education University. It has increased in size and is looking I think much more detailed at modern curricula for teachers, primarily for secondary school, but my understanding is that one of the reasons they made the change is so that they can also have some effect on curricula in university settings.

The second part of your question, what has USAID done to expand to assist in this transformation? I am not sure that we can lay out what we have explicitly done with regard to college teachers and professors. I would say that our activities have more been in the area of looking at research capacity and looking at technical and scientific capacity that actually can be married with the existing teaching capacity at universities. There are some 20 relationships where I think that sort of a secondary aspect of them is increasing teacher capacity, but I am not sure that I can lay out some that does that directly.

Now, for secondary education that is actually quite different. For secondary education there are a variety of situations, one which is a combination of partnerships between minority institutions and governments that are actually producing textbooks. And many of those textbooks again while they deal with general curricula, a number of them are also specifically targeted on science, technology

and improving that in secondary schools. So in secondary schools I think that we have a demonstrated record that is very good.

When one moves on to university I am not sure that it is a demonstrated comprehensive record.

Mr. PAYNE. Thank you very much. Ms. Woolsey.

Ms. WOOLSEY. Thank you, Mr. Chairman. I have kind of a two-part question also.

Part one is, are there systems in place or at least are you in Africa are they working on how to determine which curriculum is necessary, which courses are most applicable to both what is going on locally in a particular community? Second would be what is going on nationally in Africa? And third, worldwide? I mean how, what are we training, what are these kids learning, to be in the international market or to be in the local market?

And then once they are educated, and it is not trained it is educated, how do we protect, how does Africa protect the brain drain? How do these 19 of the 20 master's program students decide to go back to Africa and what were the jobs they came back to and why did they do the right thing and go home?

Mr. MOORE. Systems in place. I would say that when one looks at relevant curricula that is still a critical problem. Interestingly enough, at the higher education summit in the discussion with particularly African educators there was a request and desire, it was expressed more on the part of francophone Africans than it was anglophone Africans, but there was an expressed desire to work with some of the United States universities in the room to update and change some of their curricula. Many of them who felt that their curricula was somehow based, I will not say a colonial past but based in a past, and was not capable of keeping up with that combination of local, national and global that they feel they need to be competitive.

So I would say that that is still a problem. I mean there will be some other witnesses who can speak to that more clearly than I can.

Protection of the brain drain. Protection of the brain drain is in many cases a very difficult thing. I can give you two examples where I see success. In the case of Rwanda I think that the reason that 19 of 20 returned to Rwanda is that they were returning to an industry that is exploding, quite honestly. I mean if one looks at Rwandan coffee and you look at 10 years ago, the fact that there would have been no Rwandan coffee that would have been purchased by any specialty coffee shop. Specialty coffee is graded on 100 points, so specialty coffee is 80 points and above. There was almost no coffee that was produced that was 80 points and above.

If you look at Rwanda coffee now, sort of one of the level areas is about 84 points. Eighty-four points is a Starbucks standard blend, you know, just to give you a reference. But they have coffee that is going up into the 90 points which means that it is coffee that is selling in excess of \$25 a pound in Rwanda. That is not what you would pay for it once it is roasted, etc. And I think because of the expansion of the industry it is something that can absorb 19 well educated Rwandans and pay them what they would be paid elsewhere. I mean anecdotally we know that some of their roasters have come to some of the best coffee operations in the

United States. Their desire is to get several years of experience and go back home and roast. So—

Ms. WOOLSEY. Well, tell me, are they going back to be roasters or are they going back to be CEOs or CFOs or managers of the departments or?

Mr. MOORE. I think that when they go back, the roasters I think will go back to be roasters.

Ms. WOOLSEY. Okay.

Mr. MOORE. That does not mean that they might not move up along the chain. But what I mean to say is that the industry is expanding at home so much that it is soon going to be capable of paying very close to what it would pay them to do the same labor here in the United States.

Ms. WOOLSEY. Well, then—

Mr. MOORE. It has moved up pointedly.

Ms. WOOLSEY [continuing]. And excuse me again, are they replacing Starbucks Seattle, Washington, people that go to Rwanda, are they replacing those individuals now that they are educated and able to fill those same jobs?

Mr. MOORE. Are they replacing them where, in Rwanda or?

Ms. WOOLSEY. In Rwanda. So that they are—

Mr. MOORE. I think that what happens is that individuals leave for a point in time, they are replaced while they are at home, but the industry is expanding so much that when they come home there is a place not only for them but there continues to be a place for whoever replaced them.

Ms. WOOLSEY. Okay, thank you.

Mr. MOORE. That is an expanding industry.

Ms. WOOLSEY. Thank you, Mr. Chairman.

Mr. PAYNE. Thank you, Mr. Smith.

Mr. SMITH OF NEW JERSEY. Thank you very much, Mr. Chairman. I would ask unanimous consent that my opening statement be made a part of the record. And I want to thank you for convening this hearing. I think it is a very timely hearing and again I appreciate that. And I put my statement in the record.

Mr. PAYNE. Without objection.

Mr. SMITH OF NEW JERSEY. Thank you.

Mr. PAYNE. And you will not ask questions at this time? Okay.

Mr. SMITH OF NEW JERSEY. I will listen to the testimony.

Mr. PAYNE. Okay. Gentleman from North Carolina, Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman, just a couple of questions.

You said in your testimony that there was not—it says “talk.” Is the mike not on? It is lit up “talk.” Can you all hear me out there? Okay.

You said in your testimony that there were not, for whatever reason, not sufficient connections between the universities and the private sector in many African universities. Even with respect to the African equivalents of our land-grant universities which in the United States are very practical, we also have kind of something in between our secondary and tertiary systems in our community colleges that are very closely linked to the immediate needs of the private sector. Is there anything equivalent to that in Africa? And



is USAID looking at trying to encourage development of similar institutions?

Mr. MOORE. Well, I think that just judging from those who participated in the higher education summit that just took place that is a concept that Africans are very familiar with. I think that if one looked at those institutions that were in the room that were 6 or 7 years of age or less, they conform more toward what we would refer to as a community college. I mean certainly if one looked at the delegation of Ghanaians who came to the conference—and sorry to keep dwelling on Ghana but it is a place I know well so I tend to gravitate toward trying to understand—of the four universities that came from Ghana two of them are traditional universities that have existed since the colonial period, one is the former Winneba Teachers Training College which is now Education University, and there was a fourth new college that actually was started by a Ghanaian who worked here in California in the communications industry and realized that one of the things that Ghana was weak in was education that linked into the business community and the telecommunications community and has created a university which is much closer to what we would call a community college.

So I think that this idea has increased in Africa in general. The degree to which we are involved in it, we have been involved in it somewhat, looking at some of our public/private partnerships and looking at universities in the United States partnering with universities in Africa and partnering in particular with the telecommunications industry, making sure that training is relevant for those areas.

So health which I spoke to, agriculture which I spoke to, some telecommunications and business, I think that those are areas where USAID in particular is contributing to the advancement and enhancement of that type of institution.

Mr. PAYNE. Thank you. Mr. Tancredo.

Mr. TANCREDO. Thank you, Mr. Chairman. Only a brief question actually.

The costs of education, higher education in Africa, can you give us any indication of the relative costs, when I say relative, relative to the United States? In countries within Africa are there great disparities between the costs for higher education among countries in Africa? Who is doing the best job I guess of keeping costs down and why?

Mr. MOORE. Oh, I am afraid I cannot answer that question. I would have to come back to you with information. I can tell you that we do know the comparative costs between education in Africa versus education in the United States; it is much lower at a college level. I could not give you a figure. Nor could I tell you in terms of cost who in Africa seem to be doing the best at holding costs down.

WRITTEN RESPONSE RECEIVED FROM MR. FRANKLIN MOORE TO QUESTION ASKED  
DURING THE HEARING BY THE HONORABLE THOMAS G. TANCREDO

HIGHER EDUCATION IN AFRICA

Regarding the question of who is doing the best job of keeping costs down, while hesitant to say it is the "best", the Open University of Tanzania (OUT) has been touted as a model by the Association of African Universities. Established in 1992 by an act of Parliament as a certificate, diploma and degree granting institution, OUT uses distance education as a means of delivering courses through 25 Regional Centers and 69 Study Centers.

Mr. TANCREDO. Or just making it more available. I mean no one assumes that they are going to be able to have, you know, a very extensive and expensive program. But I do wonder, just do wonder what countries have done a good job at trying to provide education to the most people at that level and how the costs affect that, that is all.

Mr. MOORE. Okay. The cost element I do not feel comfortable enough to even discuss anecdotally. I will come back to you on it.

WRITTEN RESPONSE RECEIVED FROM MR. FRANKLIN MOORE TO QUESTION ASKED  
DURING THE HEARING BY THE HONORABLE THOMAS G. TANCREDO

HIGHER EDUCATION IN AFRICA

The Bafokeng Nation is located about 150 km from Johannesburg on a land that they purchased, a few kilometers from Sun City. The Nation is made up of approximately 300,000, half of them living in the Area and the other half scattered throughout South Africa. The Royal Bafokeng Nation (RBN) has retained its unique cultural identity and traditional leaders' structures and is led by a hereditary King.

Extensive platinum deposits have been found within the Nation's boundaries and mining companies pay royalties to the RBN. The RBN collects approximately \$63 million annually from these royalties allowing the RBN to implement community development projects in welfare, health and education.

These funds have also allowed the establishment of the Royal Bafokeng Institute, which functions as a private educational institute, overseeing all facets of education throughout the RBN. In addition to playing a central role in raising standards, it also:

- Is an education training facility to improve the quality of teaching in the schools;
- Is a school of excellence offering superior academic programs for children of promise for Grade Reception (Kindergarten) to Grade 12.

The Royal Bafokeng Nation's Master plan establishes an excellence center that will eventually offer higher education opportunities in fine art, performance art, interior design and graphic design, business, management and information technology. Eventually, there will be spaces for 10,000 students and 1,000 staff.

Mr. TANCREDO. All right. Well, thank you, Mr. Moore.

Thank you, Mr. Chairman, I have nothing else.

Mr. PAYNE. Thank you. Ms. Watson, would you like to ask a question?

Ms. WATSON. Permission to submit my remarks for the record, please.

Mr. PAYNE. Without objection.

Ms. WATSON. Yes. Mr. Moore, welcome. And thank you, Mr. Chairman, for holding this most important hearing. I missed most of your testimony but the questions that still lingers in my mind are programs through USAID, which I have heard complaints in the past that by the time the funding trickles down there is not much there. And are you finding the overhead still absorbing most of the funds that would be able to develop programs in education and agriculture? That is first.

And second we were in the Kingdom of Bifokin the year before last. It is a kingdom within the inside of South Africa. They discovered a platinum mine. And the queen mother said that she was sending her young people to the West to be trained. But in the meantime big Western corporations are coming in there and trying to negotiate to take over those mines. Her vision was that the proceeds from the platinum would come to build a whole new city and to be able to train. So can you update us on those kinds of programs in South Africa where they are using their own natural resources and the profit that they get to develop a stronger educational system and also do training?

So first with the USAID overhead.

Mr. MOORE. Okay. First with the USAID overhead. It would depend upon the nature of the program and the nature of the implementers of the program. If I gave three sort of large groups of implementers, there are private for profit implementers, there are non-government organization implementers, and there are college and university implementers. In those cases where one is looking at college and university implementers I think that the nature of the program lends itself well to research, training and capacity building of partner organizations, and that is the heart of the program.

WRITTEN RESPONSE RECEIVED FROM MR. FRANKLIN MOORE TO QUESTION ASKED DURING THE HEARING BY THE HONORABLE DIANE E. WATSON

#### HIGHER EDUCATION IN AFRICA

For example, the HED agreement USAID has with six U.S. higher education associations that include university matching (in-kind) contributions to USAID's investments. Over the period of 1997 to 2008, USAID's investment of \$66 million was matched by \$45 million. This matching element generates more results and impact while adhering to the rules for overhead.

Mr. MOORE. So that is where the money goes. I mean there is an overhead that the university would take for running it, but that is the nature of the program.

I am a little hard pressed to think of situations where one would say that because of overhead in a program that the money has not come down that would also lead to training when that training was

a discrete objective of the program. There may be some cases where training was not an objective of the program and as an after thought people may have thought perhaps we should engage in some training or they quite honestly may have learned in the course of doing the program we should engage in some training, and tried to maneuver the program around to accomplish that. But I am a little hard pressed to think of a situation that I am aware of where the amount of overhead kept one from getting to training or capacity development as a goal of the project.

Ms. WATSON. Let me just interject this, then you can take up my second question. I was told, and this was several years ago in South Africa, that by the time, and I am not talking about NGOs and public and private—

Mr. MOORE. Okay.

Ms. WATSON [continuing]. I am talking about USAID-sponsored programs, that so much of the monies went out, were used in overhead and very little to implement programs. So I am not—

Mr. MOORE. Okay, let me check on that.

Ms. WATSON. Okay.

Mr. MOORE. When I say NGOs, I mean NGOs as those who are implementing a USAID program.

Ms. WATSON. Well, before it gets there.

Mr. MOORE. Okay.

Ms. WATSON. And I am hearing that. That is what we were told.

Mr. MOORE. Okay. Let me check and get back to you.

As for your second question, I would need to do some research to come back to you on the second question. I can think of a number of schemes in the continent where people, where governments are quite active, either national governments or local governments, are quite active in looking at how they make use of the natural resources to build capacity, both intellectual capacity as well as physical capacity for their populations to continue. I am not familiar with the particular ones in South Africa that you spoke of.

Ms. WATSON. My time is almost up. If I can have just another minute, Mr. Chairman, to ask us as a committee, and I appreciate this particular subject matter because education has not been supplied freely in many of the countries, but along the west coast and maybe down in South Africa if we could take a look at those countries that are trying to have a formal, free educational system and maybe line them up so we could see where we could do the most amount of good. So maybe we could have staff look into those countries that are trying to build a public education system.

Thank you very much.

Mr. PAYNE. Thank you very much. And there really has been a move in Africa in general, East African countries, West, even the south, that universal education, free education, in most of the countries has now been declared. Of course when they say free it is not really free, it is freer than it was but you still have school fees and book fees and things of that nature. But it is uniform, as you mentioned, but it is more affordable now.

And secondly, there has been a real effort, as I mentioned earlier, to bring the girl child into the educational system. As you know, in the past they were really eliminated.

Well, let me thank you very much, Mr. Moore, and congratulate you once again on your new position. We will excuse you for not having the answers since you are new in the position. However, we will follow up. And I think it is a good question Mr. Tancredo asked.

And I hope that you continue your work with the convention to combat desertification since we are really now finding the problems of water and sanitation and commodities becoming a real issue.

Mr. MOORE. Thank you, sir. And I will continue that work.

Mr. PAYNE. Thank you. We will now have our second panel. We will begin with Dr. Peter McPherson who is president of the National Association of State Universities and Land-Grant Colleges, or NASULGC, an association of public research universities, land-grant institutions, and state public university systems. Its 215 members enroll more than 3.6 million students, award approximately .5 million degrees annually, and have an estimated 20 million alumni.

Prior to joining NASULGC, Dr. McPherson was president of Michigan State University from 1993 to 2004. From April to October 2003, he took a leave of absence from that position to serve as Director of Economic Policy for the Coalition Provisional Authority of Iraq, working with the currency, the Central Bank, the Ministry of Finance and the banks of the country.

He is the founding co-chair of the Partnership to Cut Hunger and Poverty in Africa; chair of the board of IFDC, an international center dealing with soil fertility and agricultural development; and chair of the board of Harvest Plus, an organization working on breeding crops for better nutrition. Dr. McPherson recently completed the chairmanship of a congressional commission to consider ways to greatly increase the number of students who study abroad.

Very pleased to have you with us.

Our second witness will be Suresh Babu, senior research fellow at the International Food Policy Research Institute, known as IFPRI. Before joining IFPRI in 1992, Dr. Babu was a research economist at Cornell University in Ithaca, New York.

Between 1989 and 1994 he spent 5 years in Malawi in various capacities. He was the senior food policy advisor to Malawi's Ministry of Agriculture, developing a national level Food and Nutrition Information Service; an evaluation economist for UNICEF-Malawi working to design food and nutrition intervention programs; coordinator of the UNICEF/IFPRI food security program in Malawi.

For the past 18 years Dr. Babu has been involved in institutional and human capacity strengthening for higher education and research in many, many countries in sub-Saharan Africa, including Ghana, Nigeria, Mozambique, Ethiopia, Kenya, Uganda, and South Africa.

Our final witness, neighbor of mine in New Jersey, Ms. Mora McLean, is president and chief executive officer of The Africa-America Institute (AAI), the oldest United States-based nonprofit organization concerned with strengthening human capacity in Africa through advanced academic education and professional training. Mrs. McLean joined AAI from the Ford Foundation, where she worked on domestic and international programs, occupying several posts at the Ford Foundation, including deputy director for Africa

and Middle East programs, and West Africa representative in Lagos.

Ms. McLean serves on the Wesleyan University Board of Trustees, a top graduate also from that university, and the Board of Directors of the U.S. International University in Nairobi, Kenya.

It is very good to see you with us, Ms. McLean.

Dr. McPherson.

**STATEMENT OF M. PETER MCPHERSON, PH.D., PRESIDENT,  
NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND  
LAND-GRANT COLLEGES**

Mr. MCPHERSON. Mr. Chairman, it is good to be here today. Thank you for having this hearing of this really very important topic.

There is an abundance of studies over the years, beginning perhaps very notably with Ted Schultz's work at the University of Chicago in the 1960s, winning a Nobel Prize for economic work, that shows the investment returns that one gets from investments in human resources. All those studies are there. But I think it is easier to understand and feel this when you think about how to build a country.

We all know intuitively that it takes more than K-12 graduates to really build and run even a semi-modern economy: The engineers it takes to oversee building and maintenance of highways and roads; the training and education it takes to have a judicial and law enforcement system that is ethical and sound; the overseeing just kind of a practical way, things we do not think about much here, are structured to test to make sure the milk we drink is safe and that you need all over the world; who teaches the schools; to provide medical care, the nurses, the doctors; in agriculture it is who helps modify the technology, the international technology, if you will, to the local condition. Corn, incidentally, needs a little different kind of corn in Kenya versus down in Zimbabwe. I mean these are all very technical things that in our sophisticated society we take for granted. And of course we invest a lot of money into them to maintain them, but you do not have them automatically in the countries throughout Africa, and indeed the shortages of personnel, people who work and run things there, is a constant complaint.

So the case it seems to me for a vibrant, strong, higher education system throughout the continent is very strong. And it is really a critical building block to build modern economies in countries. USAID over these last decades has been really changed some from my days as being administrator in the 1980s to huge investments into the Millennium Global Goals, development goals, delivering more and more goods and services in health and so forth. And I think those investments are very important. But we have not focused nearly as much as I think we should have, and I believe your hearing today and movements around the country and world are perhaps rebalancing some, that we have not put the resources into human development and education beyond the primary K-12 education which we are so importantly investing in.

So I strongly endorse the concept of greater investment, engagement and appreciate you and your committee's leadership on this.

I will not go through the dramatic increase in figures to any degree at all. It is just interesting that from 1985 to 2005 the number of students in higher education in Africa went up over six times, almost six times in that 20-year period. But you can see the tidal wave that is coming.

I mean Ethiopia, for example, from 1990 to 2005 went from 1.2 million to 12 million students in primary education. I mean the stream is moving up and this is wonderful, except there is not really the capacity to address this tidal wave of new students and to perhaps not do a very good job for those that are already there. Well, I think there is a renewed focus on this and, as I suggest, for good reason. It was mentioned a moment ago by the last testifier, this summit that Secretary Rice, Spellman and Administrator Moore called together of a couple hundred leaders in higher education in this country and developing countries, and included those in Africa. And at that conference the USAID announced a grant of \$1 million which NASULGC and ACE would have a significant part in managing. That million dollars would go for 20 grants of \$50,000 to plan some of these new partnerships that have been spoken of, partnerships between United States and African universities.

And at the same time, Gates announced a grant of \$100,000 to my organization NASULGC that would put together a grant framework focusing particularly on partnerships between Africa and United States universities on agricultural issues. I was happy to see Administrator Moore mentioning in response to a question actually, but very forcefully saying that it was USAID's intention to in new projects put in place a human resource component for all projects as practical. This is a huge change if it gets done this way because it is moving back into the human resource development beyond the primary education, very large component in possibly a very significant manner.

I in fact see support for doing this important work in a lot of places, this committee first and foremost, but I see foundations around the world getting back in. I look at Goldman Sachs, \$100 million announced a few days ago for business education. I am very happy to see the PEPFAR authorization that the House passed recently includes a provision for educating thousands of people to be done as practical in African universities with advice and assistance from United States universities as appropriate.

All this is beginning to come together at a sort of a beginning stage I well believe, the beginning of big things in my belief. And I am here today to strongly endorse this. It is true that the U.S. Government—there will be a lot of other players in this, I believe, not just the U.S. Government—but the U.S. Government has an important role. We had a history going from Point Four days in the early 1950s well into the 1980s where we did a lot of partnerships around the world, including in Africa, between United States and African universities. Those partnerships have largely gone away in any sustained way. There have been targets which the former testifier mentioned, very good projects, but we dropped away from this significant commitment. And I hope we get back into it.

We also for decades were training thousands of people a year in this country for higher education, graduate work. In fact, in the

mid-1980s we had about 15,000 people a year we brought to this country for this advanced education. Last year it was about 1,000. So for a range of reasons, not necessarily thought out or certainly intentional, over decades the U.S. Government in its program backed away from significant human resource commitments, with a marked exception being a primary education program. And I think we are getting back into that and the pendulum is beginning to swing. The world is beginning to see that you cannot build a country on primary and high school graduates alone.

Thank you, Mr. Chairman.

[The prepared statement of Mr. McPherson follows:]

PREPARED STATEMENT OF M. PETER MCPHERSON, PH.D., PRESIDENT, NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES

INTRODUCTION:

Mr. Chairman, and distinguished Members of the Committee, thank you for inviting me to speak to you about "Higher Education in Africa: Making a Link Between Intellectual Capital and Regional Development."

As Administrator of USAID in the 1980s, I was engaged in these issues and as President of Michigan State University, an institution with a rich history of development work in Africa, I continued my interest and concern about African development. Now as president of NASULGC, an association of the largest U.S. public universities with a long and distinguished history of development work in Africa, I am deeply engaged in discussions concerning the role of higher education in development in Africa with growing concern about the declining role of higher education in the U.S. government development portfolio.

Mr. Chairman I want to thank you personally for your support and focus on a number of issues regarding Africa's future from food aid, to agricultural development and now higher education. These are all intimately connected. My testimony today emphasizes the importance of higher education to African development.

Before I address the questions on which you asked me to comment, I want to share with you a very exciting development directly related to the issue we are discussing. Last week, on April 30, the U.S. Agency for International Development announced that it will collaborate with the National Association of State Universities and Land-Grant Colleges (NASULGC) to build African university capacity for instruction and problem solving through the Africa-U.S. Higher Education Initiative.

The Africa-U.S. Higher Education Initiative is led by NASULGC with the Partnership to Cut Hunger and Poverty in Africa, the Forum for Agricultural Research in Africa (FARA), Higher Education for Development (HED), and the American Distance Education Consortium (ADEC) as key partners. The goal of the Initiative is to strengthen African higher education capacity in science and technology for development in partnership with U.S. institutions of higher education.

USAID announced the \$1 million grant during the two-day Higher Education Summit for Global Development at the U.S. State Department which drew 200 university presidents, government officials, and corporate and foundation leaders to Washington from around the globe. The USAID grant will fund 20 partnership planning grants of \$50,000 to plan long-term collaborations between African and U.S. institutions focused on building capacity for instruction and problem solving in the areas of agriculture, health care, science and technology, primary and secondary education, business and other disciplines. The funds will go to the American Council on Education (ACE) with NASULGC and Higher Education for Development (HED) providing leadership for implementation of the grant. The entire \$1 million will be used for partnership grants because NASULGC and others will bear the administrative costs.

The Bill & Melinda Gates Foundation also awarded a \$100,000 grant to NASULGC to build the grant-making framework for the Africa-U.S. Higher Education Initiative.

In the future, the Initiative will seek substantial additional funding for long-term university partnerships focused on enhancing instruction and problem solving capacity in African universities. The Initiative has identified six priority fields of study upon which to focus capacity development efforts: agriculture, environment and natural resources; engineering; science and technology; health; education and teacher training; and business, management, and economics. Seven capacity building priorities have been identified within these academic fields in discussion with



African universities: faculty development; curriculum and teaching; institutional leadership and management, marketing, advocacy and fundraising; research, technology and problem solving; financial diversification and resource mobilization; improvement of teaching and research facilities and equipment; and development of linkages with private, public and NGO institutions globally, regionally and locally.

While these are very promising developments, the needs in Africa for higher education capacity are substantial. It will take a concerted effort of the donor community including the World Bank, foundations and our partners in other counties working hand-in-hand with Africans to make meaningful progress. Congress also clearly has a role to play. We believe the development of African higher education is in the U.S. national interest and should be a policy priority for the region. Toward that end, Mr. Chairman, we urge you to consider legislation authorizing a program to provide long-term assistance to support and promote higher education in Africa, much as we have done on basic education.

*Key points of the testimony:*

- Higher education is critical to economic development. It produces the teachers for basic education, health care workers to address HIV/AIDS and malaria, engineers to build infrastructure, business leaders to grow economies, scientists and technicians to create new technologies that solve development problems, and the leaders that support democratic ideals. In short, higher education produces vibrant economies, and social and political stability.
- Africa faces severe challenges in higher education:
  - First, the success of efforts to support basic education has produced a wave of demand for higher education in Africa but the region's higher education systems are not able to respond.
  - Second, funding for higher education from national governments has not kept pace with rising student demand and international donor funding has declined precipitously over the last two decades.
  - African universities, designed under colonial models to produce public servants, face structural challenges in connecting with their societies needs and have divisions between critical functions, such as research, teaching and extension, that hamper their capacity to serve societal needs effectively.
- Africans have built and worked tirelessly to maintain institutions that function in the face of considerable challenges. Good people working against long odds. The fundamental constraints (listed above) have produced a number of symptomatic problems that have been identified in a broad consultation with Africans, consultants, and reviews of the literature:
- significant lack, in both quantity and quality, of faculty training capacity;
- lack of capacity to train leaders in governance and management of higher education institutions to meet the new challenges;
- problems of quality and relevance in curriculum;
- lack of capacity for financial diversification;
- weak research and innovation capacities;
- poor physical facilities and infrastructure;
- uneven access along gender, ethnicity and geographic lines;
- U.S. universities have a long history of development successes. They have played a major role in developing human and institutional capacity and generating new technologies, both at home and abroad. Many of the challenges faced by African higher education are ones that are similar to those addressed by U.S. institutions in the past and present. Engagement should benefit both African and U.S. institutions.
- Africa and the U.S. have and are building significant linkages economically, culturally and diplomatically. Successful national and regional partnerships will foster economic exchange and greater cultural understanding. U.S. universities need to build their capacity to successfully educate American students to facilitate those connections; connections that will build a safer and more secure world for both U.S. and African citizens.
- Africa, faced with the challenge of building and reforming its higher education systems, and the U.S. facing a need for global competency in its citizens, can benefit from strong, long-term collaborative partnerships between their universities and colleges. Such activity should be a focus of USG international assistance to build the human and institutional capacity needed to sustain both African and U.S. development.

- While higher education provides the greatest opportunity for economic growth, USG development funding has not focused adequately on strengthening higher education in Africa.
- We ask the Congress to provide legislation authorizing \$100M/year to support this effort.

## TESTIMONY

*I. What benefits to the continent could U.S. support for the expansion and improvement of colleges and universities bring?*

With growing interdependence, it is critical that countries have the institutional capacity to interact globally to solve problems and create opportunities for development, security, peace and justice. Economies and societies are now linked as never before and the ability to improve people's lives rests substantially on the development of human skills and the capacity to develop and adapt technology appropriate to the needs of individual nations and local situations. *Broad-based development and transformation in Africa requires significant human and institutional capacity development.* Higher education institutions are vital to this process of developing and nurturing the human capacity, research capability and outreach programs required for equitable and sustainable growth and transformation.

*"Higher education produces the entrepreneurs, the creative thinkers, the business leaders that generate economic growth and turn poor countries into prosperous ones. Tertiary education exercises a direct influence on national productivity which largely determines living standards and a country's ability to compete in the globalization process."*<sup>1</sup>

*The developing world and Africa particularly are facing a food crisis.* Global demand for food, especially cereals, has sharply increased while supply has plateaued. In the short-term, we can potentially increase yields of food supplies by applying existing, and developing new technologies and practices to keep pace with the present and short-term projected global demand increases. But we need to think beyond the short term as well. In the longer term, by linking research and technology development with human and institutional capacity building—primarily the products of higher education—we can create the in-country capacity to solve future agriculture problems and foster national development. Properly executed this effort will grow economies, reduce rural and urban poverty, lower food prices, increase food supplies and provide better nutrition for child cognitive and physical development. Overall this process will stabilize societies, create allies for the U.S. and increase our national security.

Investing in higher education in developing countries is a critical component to long-term economic growth, stability, and poverty reduction. Investments in higher education promote technological "catch-up" and "leap-frogging," allowing countries to gain ground on more technologically advanced societies and maximize economic output. To illustrate the economic growth potential of higher education on GDP, a one-year increase in tertiary education stock would raise steady-state levels of African GDP per capita by 12.2 percent due to factor inputs, potentially boosting incomes by 3 percent after five years, a significant feat considering the trend towards decreasing incomes in some African countries.<sup>2</sup>

Many African countries do not have the human resources, research capabilities and infrastructure targeted to adapt or develop the technology required for broad-based economic development. Higher education institutions are key to this process of developing and nurturing the human skills, research capability and outreach programs required to effectively utilize S&T for African development. Demand for higher education is growing at astounding rates, stretching even further the already strained capacity of higher education institutions. Higher education enrollment in Africa has, in fact, been doubling every five years, the fastest rate of increase in the world.<sup>3</sup> In order to be more effective, African higher education must adapt to the new environment of educational needs that is emerging in Sub-Saharan Africa. The challenges African higher education institutions face, discussed below, are

<sup>1</sup>World Bank 2002. *Constructing Knowledge Societies: New Challenges for Tertiary Education.* World Bank, Washington, D.C.

<sup>2</sup>Bloom, D., Canning, D., and Chan K. (2006). *Higher Education and Economic Development in Africa.* World Bank Human Development Sector, Africa. [On-line]. Available: <http://www.sciencedev.net/Docs/Higher%20Education%20and%20economic%20developmentnet.pdf>

<sup>3</sup><http://www.arp.harvard.edu/AfricaHigherEducation/Factoids.html>

many and require serious commitment and attention on the part of both African governments and international donors.

In sum:

- Higher education builds human capacity to meet the challenges of this ever-changing world and creates opportunities for broad-based development.
- Higher education generates and adapts knowledge and technology critically required for improving economic productivity and development.
- Higher education provides a platform to engage with public, private and civil society stakeholders to apply knowledge and technology toward solving problems and creating new opportunities.
- Higher education provides the means through which women can achieve positions of leadership and increase their economic well-being, thereby having a long-term impact on equality of opportunity for women.

*II. How would you describe the state of higher education in sub-Saharan Africa and what are the major challenges facing African colleges and universities in terms of curriculum development, faculty and student recruitment and retention or other areas?*

A group concerned with international development generally, and Africa specifically, which includes NASUGLC, the Partnership to Cut Hunger in Africa and others have gathered information about the challenges and possible opportunities facing African higher education through research and consultations with African leaders in higher education, U.S. colleagues and Congressional contacts, and other experts.

The major challenges of higher education in Africa stem from three principle factors:

1. Demand for higher education has been increasing at extraordinarily rapid rates.
2. Little investment has been made in African higher education for two decades now.
3. The structures of African institutions of higher education have not adapted sufficiently to changing contexts and labor force needs.

*Exploding demand*

In Africa, the demand for higher education has been increasing extraordinarily rapidly. Higher education enrollment in Africa has, in fact, been doubling every five years,<sup>4</sup> the fastest rate of increase in the world.<sup>5</sup> This is due to a fast-growing 18-year-old population cohort and an increasing proportion of that cohort achieving secondary level diplomas. In addition, economic growth in many African countries has also contributed to a growing demand for post-secondary education as more can now afford at least some level of higher education. Among the unresolved challenges is the need to expand tertiary education coverage in a sustainable and equitable way, creating opportunities for historically disadvantaged populations.<sup>6</sup> (In spite of rapid enrollment growth in the higher education sector, Africa's higher education gross enrollment ratio (GER)—participation of the 18–23 years age-cohort—remains the lowest in the world around 5%, trailing South Asia (10%), East Asia (19%), and North Africa and Middle East (23%), another clear sign of the need to address this crisis.)

*Lack of funding*

*Over the last two decades external development assistance to higher education has declined significantly as donors have focused overwhelmingly on funding primary and secondary education.* This drop began in the early 1980s when the World Bank published a series of papers that argued that returns to primary and secondary edu-

<sup>4</sup> In sub-Saharan African countries higher education student enrollment has increased from 660 thousand in 1985 to over 3.4 million (over four-fold!) in 2005.

<sup>5</sup> <http://www.arp.harvard.edu/AfricaHigherEducation/Factoids.html>

<sup>6</sup> In sub-Saharan Africa, female student gross enrollment ratio remained around 2% between 1995 and 2004, compared to 5% and above for male students. In 2004 of the 3.4 million total tertiary education student enrollment the proportion of female students was only 38% and the proportion of female teaching staff just 4%. In math, science and engineering, female student enrollment is particularly low.

cation were much greater.<sup>7</sup> In addition, priorities shifted toward an emphasis on the delivery of goods and services, not long-term training. This donor perspective has shaped most of the sub-Saharan national Poverty Reduction Strategy Papers that influence not only donor investment but national budgetary allocations as well. Furthermore, it has been difficult for most African countries to commit significant public investment to higher education due to other immediate problems and crises that require immediate attention and resources. Although we know that education correlates with mortality rates, there are always more immediate and obvious causes of mortality and suffering that are perceived to demand greater urgency.

*The imbalance in funding between higher education and basic education must be addressed.* Indeed, the quality of primary and secondary education in Africa suffers from the lack of capacity of African higher education institutions to produce high quality teachers, education leaders, supervisors and curriculum specialists. The impact of higher education extends well beyond primary and secondary teaching capacity, however. Broad-based development in Africa cannot happen without well-educated African leaders, a strong human resource base, and institutions that can produce the knowledge necessary to address critical local, national and regional problems and produce significant economic growth that will ultimately sustain the education systems without donor assistance.

#### *Structural Issues*

African university systems were created in a colonial model that produced graduates intended to serve in the public sector. In the first years after independence, this need for public sector servants was even greater. But over the years, the needs of African countries have changed radically. *Yet, institutional structures have adapted little to these changes in context. African leaders have expressed strong concern about the need for their universities to develop entrepreneurs, business leaders, scientists, and other professionals.* Research, education and extension are housed in separate institutions in many African countries which disconnects higher education from innovation and problem solving activities. There is a desire for closer links between African universities and national and international public, private and civil society sectors to make sure that universities are more relevant to the development of their societies.

These core problems underpin a variety of challenges that African universities face including:

1. *Critical lack of capacity to address faculty shortages and quality concerns.* Across Africa and across disciplines, on average, only 70% of the required faculty are at post. In some university departments only 30 to 40% of the total faculty requirements are currently met.<sup>8</sup> The situation is particularly serious with respect to the shortage of senior faculty at the Ph.D. level. This shortage of faculty and other staff is due to a combination of factors including the inability to attract and retain qualified faculty due to low wages and poor working conditions, the retirement of many faculty trained years ago when investments were greater, loss of faculty to HIV/AIDS. Institutions also face shortages of technical, administrative and management staff. The situation is crippling not only higher education institutions but also affects the other levels of education services, health care systems and overall economic activities. Africa must build its capacity to provide these human resources.
2. *Governance, leadership and management.* Poor management and governance practices and structures plague many institutions and further exacerbate the challenges faced by higher education in Africa. Management inefficiencies drain scarce resources away from the fundamental objectives of increasing access, quality and relevance of education and spread resources even more thinly. Academic leaders are rarely trained in the management of higher education institutions. Some areas where African institutions need particular assistance is in strategic planning, market research and advocacy, research management, financial planning and management, human resource management and performance management.
3. *Problems of quality and relevance.* Due to extreme financial austerity over so many years, quality of teaching, learning and research has declined. Universities now operate with overcrowded and deteriorating physical facilities, limited and obsolete library resources, insufficient equipment and instruc-

<sup>7</sup>From 1985 to 1989, 17 per cent of the World Bank's worldwide education-sector spending was on higher education. But from 1995 to 1999, the proportion allotted to higher education declined to just 7 per cent.

<sup>8</sup>ANSTI, 2003.

tional materials, outdated curricula, and teaching staff that often lack extensive training themselves. Due to lack of investment, universities also lack access to global knowledge networks and resources, which leaves them isolated, making it even more difficult to “catch up.” There is also widespread concern about the relevance of curricula and the overall mismatch between programs of study and labor market requirements. Practical instruction receives insufficient emphasis, and students have little opportunity to develop technical competencies, problem solving experience or communication and organizational skills.

4. *Weak research and innovation capacities.* Higher education institutions in Africa do not yet possess adequate research capabilities due both to a lack of funding (for investments in infrastructure, facilities, and equipment) and the colonial legacy of these institutions. While funding is critical, the institutional separation between education (in the universities) and the research in research institutions is a fundamental constraint on faculty and curriculum development and relevance of the higher education system to society. African universities, on the whole, generally do not play the important development role that universities play in the United States, generating and adapting new knowledge and technology.<sup>9</sup> Research skills are most commonly acquired during masters and doctoral training, but Sub-Saharan African universities have minimal graduate output. Research has often been neglected due to increased teaching workloads generated by enormous undergraduate enrolment expansions. These circumstances seriously constrain the building up of those elements of national innovation systems that are so essential for increasing national productivity including research capacity, university trained researchers and professionals, graduates with advanced technical and managerial skills, and dynamic university-industry linkages
5. *Lack of capacity for financial diversification.* Around the world, institutions of higher education must adapt to decreasing public funding and learn to diversify their funding sources. Higher education institutions in Sub Saharan Africa have limited experience, expertise and capacity in managing these challenges of financial diversification and resource mobilization.
6. *Poor physical facilities and infrastructure.* Higher education institutions in Africa have seen little or no infrastructure improvements in the last few decades, due to insufficient budgets and overdependence on public financing as discussed above. Infrastructures and equipment, such as the internet, libraries, classroom space, laboratories and textbooks are critical bottlenecks resulting in the deterioration of quality of education and learning. The poor state of facilities also affects the quality of research and its ability to contribute to societal development and progress.
7. *Uneven access and low levels of enrollment in certain areas.* Despite the tidal wave of new students, graduate level (MSc and PhD) student enrollments are still small. A great concern is also in the low enrollment figures in sciences, engineering and technology, and health fields, which are critically needed for innovation, knowledge generation and adaptation and overall national competitiveness. Less than 30% of students in higher education institutions in Sub-Saharan Africa are enrolled in the fields of agriculture, health sciences, engineering and technology and basic and applied sciences. Another challenge in sub-Saharan Africa is a significant gender imbalance in higher education. In 2004 of the 3.4 million total tertiary education student enrollment the proportion of female students was only 38% and the proportion of female teaching staff just 4%. In math, science and engineering, female student enrollment is particularly low.

*III. What types of support could the United States give to African colleges and universities in order to help them provide a greater number of students with high quality education?*

African university systems were created in a colonial model that produced graduates intended to serve in the public sector. *While the needs of African countries have changed radically, resources have not been available to make responsive changes in the institutional structure and capacity.* For African institutions to make these changes, it will require both resources and partnership with higher education institutions that have functioned in a mission-oriented environment, responsive to needs in the public and private sectors. The establishment of partnerships between

<sup>9</sup> Africa's share of global scientific outputs has fallen from 0.5% in mid-1980's to 0.3% in the mid-1990's ([http://www.idrc.ca/en/ev71249-201-1-DO\\_TOPIC.html](http://www.idrc.ca/en/ev71249-201-1-DO_TOPIC.html) ; Accessed )

American and African institutions of higher education is a tried and tested mechanism that has previously fostered significant of institutional capacity development in Africa decades ago when appropriately funded.

A new kind of partnership is needed now, based on mutual respect and solidarity, and rooted in a grounded analysis of what actually works. For Africa to end poverty, requires a partnership between Africa and the developed world, which takes full account of Africa's diversity and particular circumstances and allows for African leadership in the identification of needs and opportunities.

After consultations with leaders from Africa and the United States, it is clear that partnerships among African and U.S. higher education institutions focusing on science and technology are an expressed interest of both African and U.S. institutions because of their perceived importance in economic, political and social development. This interest extends to a broad continuum of U.S. and African institutions including four-year institutions and community and technical colleges, both public and private, serving a diverse set of students.

African leadership's interest in developing African capacity in science and technology is encapsulated in the Addis Ababa *Declaration on Science and Technology and Scientific Research for Development* issued by the Heads of State of the African Union in January 2007. Prominent donor publications, including the report of the National Research Council to USAID in 2006, titled "The Fundamental Role of Science and Technology in International Development"<sup>10</sup> and others from the World Bank, the U.N., the Rand Corporation and other institutions, suggest that donors are aligning behind African governments on this vision.

Partnerships between African and U.S. higher education institutions have substantial benefits for American institutions as well. U.S. institutions need to incorporate international dimensions into their education, discovery and engagement programs to increase their excellence in this global world. This is especially true for improving U.S. institutions' understandings of Africa.

Africa and the United States are becoming more interconnected through trade, investment, security, health, and cultural policies and programs. African exports to the U.S. increased by 40% and 23% in 2005 and 2006, respectively. About 22% of Africa's exports go to the United States. U.S. exports to Africa increased by 15% and 22% in 2005 and 2006, respectively. U.S. direct investment in Africa has risen from \$7 billion in 1998 to \$18.5 billion in 2006 or about 13% annually. Africa had one of the highest annual GDP growth rates from 2000–2006 among world regions: higher than any region other than the CIS.<sup>11</sup> U.S. security interests are becoming more engaged in Africa, and cultural linkages between the United States and Africa are growing steadily, especially with the African Diaspora. The emergence of transnational health issues are also bringing the two continents closer together, as the ability to control, manage and eliminate various diseases and health challenges requires greater cooperation and collaboration between nations. New investments in security linkages between the U.S. and African nations will require that U.S. leadership be better educated about Africa for these linkages to be successful for both Africa and the United States.

Not only is there a critical role for higher education in economic development, but we now have new tools that make linkages among higher education institutions (within Africa and between Africa and the rest of the world) more productive. Distance education opportunities are now available for African students to learn from among the best faculty in the world through a variety of distance education mechanisms. There are also expanding opportunities for research communities to grow and prosper across national boundaries through enhanced networks, communication methods and computing capacities. New communications technologies allow students and faculty in Africa to access databases, scientific journals and expanded knowledge systems around the world. Worldwide cell phone and video service can connect people as never before, expanding opportunities in terms of teaching, research and consultation. While these are valuable tools, the messages need to be adapted and relevant to Africa. Considerable investment is required to make U.S. and European courses appropriate for the African context. In the African continent context where spatial considerations are especially important, distance education can be an effective tool for reaching farmers and people in rural areas. Africa's experience in managing the tidal wave of new students demanding higher education may well teach U.S. institutions about how to make higher education more cost-effective through the use of new technologies and techniques.

<sup>10</sup>National Research Council of the National Academies 2006 "The Fundamental Role of Science and Technology in International Development: an Imperative for USAID." National Academies Press, Washington DC,

<sup>11</sup>World Trade Organization: World Trade Developments, 2007

One of the clear conclusions from we have drawn from our fact finding process is the need to strengthen, expand and revitalize linkages between U.S. and African institutions of higher education with the goal of strengthening the development role of higher education and making institutions more relevant to national needs. Such an effort should focus on developing a program:

- to encourage and support mutually beneficial collaboration between African and U.S. higher education institutions, and
- to develop mechanisms for active communication between higher education institutions inside and outside the effort to promote the sharing of knowledge and experiences, facilitating learning and the adoption of best practices, and raising the visibility not only of the importance of higher education for Africa, but also the emerging solutions arising from these partnerships.

*IV. Are there potential pitfalls to increasing aid to African colleges and universities?*

Providing increased assistance to African higher education is essential and extremely positive step. There is nothing wrong with the concept but it must be carried out in a careful and thoughtful manner to ensure effective and efficient use of foreign assistance resources. In the implementation of such an effort there are some cautions described below.

*Lack of African leadership in the development of partnerships.* In the past, partnerships that were less successful often suffered from imbalance in decision-making. This inequity in the relationship could manifest itself in all aspects of the project. Successful development, reform and innovation in higher education will require an intimate knowledge of the local culture, conditions and economies of the higher education institutions and strong African leadership in the identification of needs and opportunities. Only if the context and the constraints are thoroughly understood and the African partners are collaboratively involved in making decisions about how to direct efforts will true progress occur.

*Inadequate centralized management structure to ensure accountability and oversight.* Multi-institutional projects that cross cultures and have a diverse array of objectives present a complex management challenge. To be successful they will need strong internal leadership and likely, external support to provide management guidance. A well organized central management structure for early monitoring, evaluation and guidance will improve the success of the any effort. Communication both within and outside the program will be essential.

*Demand for wide coverage versus concentration in both topics and institutions.* In any effort to improve the region's higher education system on a limited funding resource, there is tension between breadth and depth of coverage in topic focus areas and in project funding (size versus number). There are strong pressures for inclusion both of disciplines and institutions but wide and thin may not yield the best overall result. For example initially focusing resources more narrowly to develop high quality results that can be replicated may be a more effective strategy for success.

*Unified program versus collection of independent projects.* The effort to enhance higher education will likely result in a range of projects. While the projects will have differences determined by their institutional partners' needs and priorities, there is likely to be much commonality across projects. To capture the full experience at the program level and increase that capacity at the project level, project experiences must be shared, analyzed and adopted as appropriate between projects. In short the effort must be an integrated shared management and learning entity not just a collection of projects.

*Difficulty in selecting successful projects up front.* One of the most critical steps in developing a successful effort is to ensure the best projects are selected. Because these types of partnership projects are likely to be complex (many partners, disciplines, and diverse objectives) management and leadership will be critical components of success and the funding of planning grants will allow for strong management plans to be established. Planning grants (small and numerous) not only allow the potential projects the opportunity to pick good partners and establish appropriate relationships, but also allow the oversight entity the opportunity to judge the management skills of the projects leaders and the efficiency of their management structure. Planning is critical to these types of projects fully justifying investment up front to ensure quality in the end.

Mr. PAYNE. Thank you very much. Dr. Babu.

**STATEMENT OF SURESH BABU, PH.D., SENIOR RESEARCH FELLOW, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE**

Mr. BABU. Thank you, Mr. Chairman. It is an honor to be here. I have been working at the International Food Policy Research Institute where we have been working for the past 20 years to build capacity for higher education, particularly in the field of agriculture, specifically on agricultural education. From that perspective I will give a broad set of challenges that we have faced and some lessons that we have learned in that process that may be useful for this committee.

The challenges we are currently facing in higher education have been mentioned. There are two sets of contradictions: One, there are a lot of conferences, both in Africa and outside Africa, talking about the importance of higher education in the past 10 years. But then there is very little commitment on the part of African governments for higher education in terms of strengthening their institutions, partly because of the financial strain and partly because of the low public expenditure on education. And of course we talked about the emphasis on primary education in the past 15 years or so.

Coupled with that is the increasing demand for higher education and also the reducing level of quality of higher education, partly because of the space, infrastructure and learning facilities that are poor and are now the current challenges that African institutions are facing in higher education systems. Two sets of interventions are necessary: One, how do we help the institutions that are already in the process of reforming themselves to meet the current challenges? There are a lot of institutions within the countries who are taking those steps, and how do we help them in order to meet the cost of education and also to become financially viable. That is one set of interventions that we can think about.

The second set of intervention relates to the quality of education: The higher education quality has deteriorated in the last 20 years. And when I was teaching almost 18 years ago, they were teaching materials that were 20 years old in agriculture schools, partly because the libraries do not have quality materials. They do not have current editions of books. The learning materials are very old. And the curriculum that they teach, partly because of the past practice, is very difficult to change.

I was trying to introduce a course in agricultural economics. It took 1 year to get it approved through the senate of the university and so on, whereas in this country we can just decide and teach what we want. So there is the rigidity that comes with the curriculum change. The question was asked before: How do we change in terms of meeting the needs in the regional markets and international markets? How do we make Africa compete in the global markets? That requires constant revision of curriculum. And that is a challenge that we can help.

Having said that, I will focus on the interventions with more detail. In terms of helping the countries to reform themselves, we are not going to be there forever to fund them. At one point we have to make them sustainable. How do we help those countries who are already thinking about reforming their systems so that they can meet the challenges themselves?



One way to do that is identify the runners who are already running in that program. I can mention a few universities. For example, in the last 10 years the University of Dar es Salaam has made a tremendous effort in reforming the system. It is almost self-sustainable. They probably do not need any external support. But in the past 10 years they were supported by many donors, bilateral donors and international agencies. And that is the kind of support that we would like to think about, so that 10 years from now we will not have to be helping all the countries in Africa.

The second set of support is short term, but there are quick winners that we can get out of this support. How do we increase the credibility of the public universities in Africa so that they are respected in terms of quality? One, we can help with the library facilities. For example, we can quickly help upgrade the libraries and quickly support them in terms of Internet connections so that faculties have connection to the rest of the world to download the materials from M.I.T., Harvard, where the public materials and the course materials are available online. But the local universities do not have the capacity to interact with the rest of the world. And that is something that we can quickly help with.

We can also think about helping them to meet the increasing demand that we talked about in new modes of the delivery of education. Why not distance education? Why not evening colleges? We talked about the community colleges, but why not evening colleges where the same facility could be used by the people who are already employed to upgrade their education? We need to think about new learning programs for the universities. But these are also money-making opportunities for them to sustain themselves in the long run.

Then we need to talk about how to improve the quality of education. There, the partnership with United States universities and European universities that is already taking place needs to be strengthened. And in various fields there are organizations and associations in Africa that are coming up. How do we strengthen these professional associations so that they feel part of some growing, credible association, so that they stay in the job, conduct research, and teach well?

Another aspect that we could help, with which one of the witnesses mentioned this morning, is supporting research. Without good research programs, the universities that are just based on teaching are not going to be sustainable. There is no way. Interest in many of the faculties who are trained with Ph.D. degrees to just go and teach undergraduate teaching. How we help these Ph.D. who have come from United States or European universities to stay on the job is to provide them with seed funding. But the universities are not highly oriented toward research. So we can help in terms of seed funding by starting centers of research and development on various fields in these universities. We cannot do it in every university but we can do it in selected universities. At least one university in leading countries would be a knowledge center for connecting to the industries locally as well as to other universities that are coming up.

I just lastly want to mention the private institutions that are coming up, mostly from the religious side. These are more or less

the community colleges that you talked about. And they have focused on business management, secretarial assistance, and building capacity for the industries, and they could be strengthened as well. But you need to have a regulatory system in terms of accreditation. Otherwise people will be selling certificates without credible qualifications given to the students.

Let me stop here, Mr. Chairman.

[The prepared statement of Mr. Babu follows:]

PREPARED STATEMENT OF SURESH BABU, PH.D., SENIOR RESEARCH FELLOW,  
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

#### INTRODUCTION

It is well recognized that the development of Sub-Saharan African countries crucially depends on how well they position themselves in the global knowledge economy. Participating in the global knowledge economy requires high level of capacity in various sectors and at all levels. While policymakers in African countries increasingly recognize the role of higher education in building national capacities, the African higher education system continue to suffer from the poor policy priorities in the last two decades. The higher education systems in African countries are under severe financial strain accentuated by gross underfunding and increasing demand for higher education.

Two major efforts are needed to revive higher education systems in African countries:

- *Reform the higher education system to meet the growing demand for both quantity and quality of higher education; and*
- *Improve the quality and relevance of the educational programs through dynamic approaches to curriculum and content development, sharing, and delivery.*

In this brief, a select set of questions are addressed in order to guide such efforts.

#### HOW WOULD ONE DESCRIBE THE STATE OF HIGHER EDUCATION IN SUB-SAHARAN AFRICA?

In the last fifteen years, Sub-Saharan African countries have seen a multi-fold increase in demand for higher education with rapid growth in the rate of enrollment in all areas of training. Yet, higher education in Sub-Saharan Africa has suffered long through a series of neglect in most of the countries with few exceptions. In the last decade, however, some countries have been reversing this trend through various reform efforts that are internally organized and implemented, while a majority of the universities and colleges are still struggling to survive and to meet the growing demand for higher education. Some key challenges are highlighted below.

##### *Long neglect of higher education systems*

Given that the international community focused, in the last two decades, on improving basic literacy through "Education for all" programs, the higher education systems in much of Sub-Saharan Africa received inadequate funding. This resulted in deterioration of institutional capacity and quality of educational programs. Further, due to population growth coupled with income increases, the number of post-secondary students who enter the market for higher education increased exponentially. This increased demand cannot be fully met by the existing higher education institutions, due to their inability to expand structurally, attrition of the faculty, deteriorating infrastructure and facilities, and continued low public funding for higher education. There is need for devising new approaches to increase the enrollment and accommodating this growing need for higher education. However, a part of the increased demand in the last ten years has been met by the expansion of private educational institutions, most of which solely depend on high tuition fee from the students to run their programs.

##### *Brain drain among the faculty*

Due to the continued neglect of the higher education institutions, over the years, well trained faculty members have migrated to other opportunities. Among the faculty that remains there is little motivation and reward for their work, due to low salaries and poor work environment. There has been some revision in terms of increasing the retention of the faculty through university-wide reforms and pay in-

creases in selected universities. These are but exceptions rather than the rule. In addition, due to recent growth of the economies, faculty members continue to leave for other high-paying domestic, regional, and global opportunities including consulting and private sector jobs. This has created acute shortage of teaching staff and has resulted in high teaching workload. Further, this has led to low quality of course delivery.

*Limited role of private sector institutions*

Low capacity of the faculty coupled with high enrollment of students from increasing demand for higher education resulted in low quality education in most of the universities. Although a part of this increasing demand for higher education is met by growing number of private sector institutions, their absorption continues to be limited and to selected areas, such as business management where they could make financial recovery through tuition fees. Thus, access to affordable higher education in agriculture, engineering, and science and technology fields in which capacity development is crucial for economic growth, continues to be a challenge to millions of qualified students with secondary school education.

*Quality and relevance of the curriculum*

Another immediate challenge facing the higher education systems in Sub-Saharan Africa is the quality of the curriculum and the relevance of the educational programs. Currently in much of Sub-Saharan Africa, the curriculum and course contents do not fully address the changing needs of the growing economies. Thus, the relevance of the educational programs in developing problem-solving capacity and the skill sets needed for the knowledge economy remains limited. Higher education institutions in most of the African countries need to upgrade their higher educational curriculum and course contents to effectively compete in the regional and global marketplace.

*Lack of research-based universities and distance education*

Continued financial woes, poor governance, lack of leadership, resistance to change, mismanagement, and gender inequality confront most of the higher education institutions in Sub-Saharan Africa. These challenges hamstrung most of the universities to go beyond their teaching mission. While quality of higher education critically depends on the capacity of the faculty to generate, absorb, and translate existing knowledge, programs that support research are also crucial. While there are few institutions that are emerging as research-based universities, much of the educational programs in Africa remain focused on teaching. In addition, emerging technologies, such as information and communication technologies provide opportunities for initiating distance and e-learning programs, but few universities are positioned to take advantage of such technologies.

*Learning from the reformers*

Learning from universities (University of Dar es Salam, Makerere University in Uganda, University of Malawi, and Eduardo Mondlane University in Mozambique, and National University of Rwanda to name a few) that have succeeded in reforming their institutions will be a first step in sharing best practices with others who are attempting to meet the growing challenges of higher education systems in Africa. It is important to reward the winners who have made efforts in the last 10 to 15 years to reform their institutions and to encourage those who are currently attempting such reforms to increase the quantity and quality contributions of higher education systems.

In summary, soaring demand for higher education Sub-Saharan Africa cannot be met by the current institutions with low levels of learning infrastructure, inadequate trained teaching faculty, and poor quality of curriculum and course contents. Improvements are sorely needed through appropriate reforms to enhance the learning infrastructure, accessibility, and affordability of the higher education system.

What are the major challenges facing African colleges and universities in terms of curriculum development, infrastructure, faculty, and student recruitment and retention or other areas?

Several challenges confront universities and colleges in Sub-Saharan Africa.

*Poor quality of education*

Low quality of education in much of the higher education system in Sub-Saharan Africa is a result of underdeveloped curricula that are not dynamic and that do not respond to the emerging needs of the economies. Courses and programs currently offered by the universities, while help in developing general skills are not highly demand-driven. In many universities, the curriculum has not been revised for several years. The rigidity of curriculum development process, which takes 3–5 years on an

average, makes the courses and programs offered by the universities less relevant to the changing needs of the growing economies. Emerging issues that confront their economies are seldom addressed as part of the curriculum. As a result students come out to the job market ill prepared. This poses a challenge in terms of the quality of education as well as the relevance of higher education systems in Sub-Saharan Africa. Even with old curriculum, due to the inadequate availability of current editions of text books and reading materials, the courses offered do not remain current. Improvements in curriculum design, course content, and learning materials with research based knowledge from both within and outside Sub-Saharan Africa will increase the relevance and competitiveness of higher education programs.

*Low number and capacity of teaching faculty*

The supply of well trained teaching faculty is low in many universities. While the absolute number of teaching staff may have increased in some universities, the student-faculty ratio has increased in the last ten years due to high enrollment of students. There is an acute shortage of capacity to teach both undergraduate and post-graduate courses. On an average, only 30 percent of the faculty has PhDs in their respective fields. While the demand for teaching at the undergraduate level has increased, up-gradation of skills of the teaching faculty has been slow and minimal. Thus, capacity to teach skills related to problem-solving and development of innovation and entrepreneurial capacity remains low. Retention of quality teachers and researchers is a major challenge due to low salaries and high workload. Development of parallel degree programs in several universities in the same city stretches the teaching capacity at the national level. At the post-graduate level, inadequate capacity to guide student thesis results in high levels of dropout rates among the registered candidates.

*Low incentives and motivation*

The salaries of the faculty continue to be low, and hence retention of high-quality faculty remains a problem. Those faculty who remain, end up taking part-time jobs to supplement their income levels. Those who are able to do research take up consultancies on the side that are poorly coordinated within the university systems. Since faculty activities are not coordinated through structured research programs, participation of faculty in consultancies do not add value to the knowledge base or to teaching programs. This combined with lack of learning resources affects the quality of teaching. Developing and motivating a new generation of teachers is the current need for reviving higher education systems in Sub-Saharan Africa. Additionally, limited office space, overcrowded class rooms and learning infrastructure, inadequate learning and teaching materials including unavailability of current editions of text books, and library facilities pose major challenge to motivating and retaining teaching staff.

*Meeting growing demand and attracting students to key areas*

With limited teaching capacity and growing enrollment of students, the current higher education system in most countries, is unable to meet the demand and maintain the quality of education. Public institutions attract good students but leave a large number of qualified students out due to capacity limitations. While private institutions absorb a portion of them, the high cost of tuition remains a constraint for low income students to enter private institutions. Students from low income families cannot go to private schools due to lack of scholarships and funding. With high demand for business management and engineering skills in the job market, basic sciences and agriculture remain the last resort of the students. Attracting students to key fields such as agriculture, for example, a sector that contributes to 35% of GDP and supports 70% of the population in African countries is a priority for creating a workforce that will contribute to poverty reduction and overall economic development.

What kind of support should the international community provide African colleges and universities in order to help them to provide a greater number of students with high quality education?

The international community can support Sub-Saharan African universities and colleges in two major ways:

- help them reform their system to meet the increasing demand for higher education; and
- help offer high quality and relevant educational programs that meets the needs of the society.

*Supporting the Higher Education Reform Process*

- There is an urgent need to encourage the institutional reform process that has been underway in several countries at the higher education systems level. *Rewarding good performers* through appropriate incentives and supporting those that are in the process of reforming would be essential. Several approaches as mentioned below could help in such support.
- *Infrastructure support to higher education institutions*—that are currently attempting institutional reforms—in up-grading library facilities and computer software and in increasing the use of educational technologies for both research and teaching would be an effective way to support such reform processes. Improving the infrastructure for internet-based communication would also help in intra-university knowledge sharing and improving the learning management systems.
- *Supporting new modes of delivery of education*, such as distance education and e-learning could be an effective approach to increase the income-generating opportunities for universities and to offer short-term and regular educational programs in emerging areas with high demand. This will also help to meet the growing demand for higher education by reaching out to students in remote areas.
- With the growing number of private institutions offering higher educational programs, most countries in Sub-Saharan Africa require *regulatory mechanisms for maintaining standards and quality of education programs*. This requires strengthening national capacities of university commissions of higher education in various countries.
- *Improving the quality of management of university systems* through management training of leaders of university systems for designing, implementing, and evaluating reform processes and by learning from others who have successfully reformed their higher education systems would be useful.
- As part of the reform process, *creating opportunities for university-based research* through seed funding for research and development centers within the universities that immediately address the problems of society would encourage faculty to remain in their positions and effectively engage in professional development activities.
- Programs that connect industries to research activities in the universities are another way to *encourage participation of faculty in research and development of industries* and to sell their time to increase their income earning opportunities. Projects funded by donors that relate to development programs could be connected to research activities of the faculty in a structured manner. Developed well such collaboration could transform each university into a knowledge hub for the society that it serves. Bilateral missions could play a significant role in this effort.
- *Supporting the emerging professional associations* at the national and regional levels for various subject areas is one way to improve the sustainability of existing networks of scholars. Increasing publishing opportunities for researchers in local journals published from Africa would enable better sharing research results and help connecting them to the world research community.
- *Attracting students through competitive mechanisms* to the public universities would bring in high quality students to various educational programs. However, establishing the credibility of the university system through academic auditing, performance measurement, organization, and management of the educational programs is also essential.
- It is important to *contextualize the support to higher education* depending on the need at the national level. Some countries are progressing well in terms of reforming their higher education systems while others are lagging behind. The needs of the countries widely differ ranging from support to curriculum development to faculty strengthening for new areas of education.
- *Provision of scholarships to disadvantaged groups* that are not able to participate in higher education systems is important. Public-private partnerships in identifying talented students and mentoring them through organized mentorship programs would help in developing a new generation of scholars.

*Increasing the Quality and Relevance of Curriculum and Course Contents*

- An immediate need in many universities and colleges is to increase the quality of education through *revamping the curriculum and course contents* to meet the emerging skill needs of the growing economies. Supporting univer-

sities with regular review process and revision of curriculum will help increase the relevance of the educational programs.

- *Developing partnerships* with international organizations and universities in developed countries for supporting contextualized curriculum and course content development, sharing and delivery is a priority.
- *Developing a network of educators and course content generators* in various fields through a platform for course content development, conversion, and delivery would help in quick up-gradation of curriculum and course content. By encouraging development of local content by the African professors, the quality and relevance of materials taught within Africa could be vastly improved.
- *Institutional and faculty capacity strengthening* through up-gradation of teaching skills for designing curriculum, developing course content, and delivering educational programs could vastly improve the quality of education currently offered.
- *Staff development plans* of selected universities could be supported through exchange of staff members and through short-term capacity building efforts focused on various fields with lack of capacity for teaching.
- *A higher education corps of educators* could be established to attract professors from North America and Europe who are retired but still active to serve as paid volunteers in several African universities. This will not only bring latest course content to Africa, but also fill the current gaps in teaching in several countries.
- *Developing a quality assurance mechanism* through the support of regional organizations such as Association of African Universities would help in the process of monitoring the quality of education offered through both public and private institutions.

#### ARE THERE POTENTIAL PITFALLS OF INCREASING AID TO AFRICAN COLLEGES AND UNIVERSITIES?

Poor governance and mismanagement continues to be a major constraint in several universities and colleges in Sub-Saharan Africa. This is partly due to inexperienced administrators, lack of priority setting, and pilferage of resources through corruption and mismanagement. These are some of the pitfalls through which increasing aid to colleges and universities may not reach the intended beneficiaries. However, such pitfalls could be minimized if appropriate systems are put in place to ensure that the assistance offered is used for intended purposes. Most importantly, sustainability issues must be built in for the universities to continue the efforts initiated by the aid provided to them. Some lessons are worth highlighting:

- A major lesson from the past efforts to strengthen university systems is that provision of aid to passive receivers will result in only marginal benefits and will cease right after the project period.
- Supporting institutions with indigenously developed long-term plans and those who have initiated reform process must be a priority.
- Development partners must avoid short term approaches to institutional building. Building university systems takes a minimum of ten to fifteen years. Short term help however, in upgrading institutional facilities will help those who have initiated internally designed reform process.
- Long-term investments in few selected institutions that could serve selected countries would be better than spreading the resources thin to cover a wide range of institutions. Donor coordination within the countries is essential to avoid competing interests in the same institution.
- Lessons from institutional strengthening in Malawi, Mozambique, and Ghana indicate combining research and teaching programs to upgrade the educational programs and providing opportunities for local faculty to conduct collaborative research increases the retention of the staff and improves sustainability of institutional building efforts.
- Given the current low level capacity to teach and conduct research activities in many of the universities, supporting regional thematic research and teaching networks will help fill immediate gaps in several fields. While some institutions have high level capacity for research and training in selected areas, such capacity remains scattered and currently underutilized. Combining such individual and institutional capacities through regional networks has proven cost effective in offering research and teaching programs in several higher education fields.

WHAT BENEFITS TO THE CONTINENT COULD US SUPPORT FOR THE EXPANSION OF COLLEGES AND UNIVERSITIES BRING?

To be relevant, universities and colleges in Sub-Saharan Africa ought to become knowledge centers. In order to make meaningful contribution to the growing demand for higher education and to provide quality education programs, they need to address a series of challenges outlined above. However, such challenges can be overcome with additional support and stimulation for the reform process within the university systems.

Two major benefits will accrue from the external support for expansion and improvement of the universities and colleges: improved quality of education through curriculum and content revision, and improved quantity of graduates, through speeding up of reform process, to meet the growing demand for skills needed for competitive economies in Africa.

Additionally, by accommodating more students through reduction in the cost of education and improvement in the financial sustainability, higher educational institutions would be able to meet their objectives. By strengthening the capacity of the universities for improving the quality of education and for better management of their education systems, the external support in the long run will help in increasing the number of graduates at all levels, and in improving capacity of the institutions to offer high quality educational programs. This could lead to better skill levels of a large number of graduates who would contribute to the growth of the economies.

By supporting the infrastructure of the universities through better educational technologies, the current digital divide could be reduced. Improvements in the skill levels of faculty to conduct research and educational programs and to better manage higher education institutions can result in retention of trained faculty. Finally, improved quantity and quality of graduates with problem-solving skills and innovation capacities can increase the speed of growth of the national economies and result in improved quality of life of large number of poor people in Sub-Saharan Africa.

Mr. PAYNE. Thank you very much. And we will hear from our final witness, Ms. McLean.

**STATEMENT OF MORA MCLEAN, ESQ., PRESIDENT AND CHIEF EXECUTIVE OFFICER, THE AFRICA-AMERICA INSTITUTE**

Ms. MCLEAN. Thank you, Mr. Chairman and the members of this subcommittee for inviting me to share my views. I would like to request permission as well to submit my written remarks for the record.

Mr. PAYNE. Without objection.

Ms. MCLEAN. I was asked to respond to five questions. And in the interest of time I will just touch upon them in my oral presentation.

The first two questions have to do with the state of higher education in Africa and the major challenges facing institutions there. I feel compelled to depart somewhat from my written testimony in order to go back and examine some of the context for the many challenges that we are raising here.

African higher education was not always in the bad state that it is in today. It is important to stress this. Most newly independent African nations in the early 1950s regarded higher education as critical for the development of their national economies and for political and social cohesion. And so they made establishing universities and colleges a priority. And they were often starting from scratch because the colonial powers left very little behind.

Things began to deteriorate in the late 1970s. There was economic decline, terms of trade worsened, dictators seized power. And this is also very important—the political context—because very frequently these dictators had no sympathy for universities, which they regarded as centers of social critique and political opposition.

Then in the 1980s governments began to redirect their funding to primary education—some of that has been addressed here, and in large part at the insistence of major multilateral and bilateral donors who felt essentially that higher education was a luxury these countries could no longer afford.

But to make matters worse, in this declining state there was this increase in enrollment. And so, for example, the World Bank reports that between 1975 and 1995, enrollments in higher education institutions in Africa increased tenfold. So they went in this period from being very elite institutions catering to highly-qualified, high-performing students to ones that were required, with less resources, to respond to a growing university population. So there is a context. The glass was not always empty.

In my written remarks what I have concentrated on in describing the state of higher education and challenges confronting institutions today are many variables that have already been discussed: For example, the gross enrollment ratio. There is also something called the school life expectancy indicator, which is a measure that estimates the number of years of education a person is expected to receive at any given level, primary, secondary or tertiary. As you would expect, in North America and in Western Europe the school life expectancy indicator for tertiary education is the highest in the world: It is 3 years, which is twice the global average. In sub-Saharan Africa, on the other hand, a young person is likely to spend an average of 6 months or less in a tertiary institution.

There has also been reference to what is called the outbound mobility ratio, which is the extent to which African students are likely to seek tertiary education abroad. And in this instance Africa has the highest rate—three times the global average—with an outbound mobility ratio of 5.9 percent. And this, of course, is a function of the infamous brain drain which I will return to later on in my remarks. And there are many other indicators which, as I say, have also been referenced.

These are not new challenges. They have been building over the course of some 20 or so years when, again, higher education was largely neglected by African governments and largely at the behest of the international donor community.

That brings me to the third question I was asked to cover, which is what types of support should the international community provide to higher education institutions in Africa? Here again I feel compelled, and ask the forgiveness of those who are impatient with history, to provide some context.

The topic of this hearing was as relevant 50 years ago as it is today. There is a long and rich tradition of United States interest in and support for African higher education. And, indeed, the organization I have the privilege to head, The Africa-America Institute, was established and became prominent during this early period. So since 1953 education for Africans and about Africa has been our focus. We work with some 421 partner institutions worldwide, including higher education and professional training institutions spread across five continents: Africa, Australia, Europe, North and South America. The Goldman Sachs program was referenced, for example, and AAI will be an administrator of that program for the Africa component. And we have many other programs that are un-



derwritten in the main by private companies, private foundations, and individuals. Just 15 percent of our support comes from overhead recoveries from U.S. Government contracts, which is a complete change from what was the case in the early years.

Now, someone earlier cited the fact that before World War II it was mainly churches and missionary bodies that were main sources of American support for African education at all levels. Then during the early 1950s, our Government discovered education as a potent weapon in the ideological cold war, and what was broadly defined as international education and cultural exchange took off. This was the period during which AAI came into being.

The East African Airlifts, which was an effort organized in the late 1950s by the Kenyan trade unionist, Thomas Joseph Mboya, with help from the Kennedy family foundation, brought some 400 African students to the United States, mainly from Kenya, to enroll in university programs. The airlifts had a profound impact on the scope and direction of U.S. Government-sponsored scholarship programs for Africans: From then on the focus was on both public diplomacy and education to increase the human capacity to address poverty and other conditions on the continent.

Now we come to the 1990s and the end of the Cold War which spurred renewed interest and concern within official United States policy circles for Africa in general. Through more than a decade and three successive White House administrations, special efforts have been taken to increase Africa's policy profile. But despite renewed policy attention to Africa, the overall proportion of Africans involved in United States-sponsored international exchanges in training programs remains low. Dr. McPherson referred to this. In fact, USAID-sponsored international training programs for Africans have declined steadily and substantially over the past 15 or so years, with African participant numbers falling by 75 percent between fiscal 1991 and 2000. And much of this is a consequence of USAID's decision to make a strategic shift away from higher education and toward basic education, and away from degree granting programs toward more short-term programs.

But while exchanges and training represent only one set of many foreign policy tools and resources, they are a particularly important means of United States engagement with Africa, given that Africa's human resource needs and the mutual benefits of increased United States-Africa relations are so great. And they have a bearing on the effectiveness of other foreign aid assistance, so that if we want PEPFAR and MCA and all these other initiatives to maximize their potential we have got to invest more in higher order skills.

That brings me to the fourth question which is, are there potential pitfalls to increasing aid to African colleges and universities?

In their state of economic dependency, African governments have been held to an exceptionally high standard as donors demand demonstration of a direct causal link between higher education investments and economic growth. But as one researcher writes, "Reducing the benefits of tertiary education simply to measurable economic payoffs is a rather impoverished vision." I heartily agree.

And I offer this quote from one AAI alumna, a South African university professor, to illustrate the point. She says:

“Education is now widely acknowledged as the resource needed to expand our knowledge base and to discover the new, to exercise our intellectual capacity, to extract meaning from our world, expand our social and intellectual horizons, to gain insight, skills and knowledge which in turn can add value to our natural surroundings. The educational opportunity provided to me by AAI empowered me with most, if not all, of these beneficial factors. But most importantly, education coupled with international experience liberated me from the inferiority complex baggage that I carried for years as a South African black woman.”

These are some of the intangibles.

So although frequently cited as a pitfall for choosing to support higher education for development, the absence of hard empirical proof of the social returns to tertiary education is offset by other data. Again, some of these have been referred to earlier: Countries with higher education systems correlate with positive indices of development, including greater technological advancement, political stability, successful entrepreneurship, and so on.

Support for higher education training is also often associated with another pitfall, the infamous brain drain to which I referred earlier. But contrary to the conventional wisdom, providing Africans with opportunities to study abroad does not inevitably lead to a permanent loss of talent from the continent. And to assume so obscures variations in the international flow of human capital, and imposes a double standard. Because often the subtext of concerns about brain drain, the emmigration of trained professionals from Africa, is that Africans should be discouraged, if not prevented, from doing what other talented and ambitious people around the world have done for time immemorial, which is to seek to expand their horizons.

The intellectual frame of reference for Africans, as for other intellectually curious people around the world, is international as well as local. And, in fact, analyses of human capital flows reveal that although people may leave home they do not necessarily do so permanently. And even when they do maintain permanent residence abroad they are likely to contribute to improving conditions back home in significant ways. This is globally. And our experience is that it particularly applies to Africans.

And in any case, a recent assessment that USAID commissioned of some 40 years of U.S. investment in long-term training programs found that it was one of the best investments the United States Government ever made in a host of ways. In particular brain drain was contained, not worsened, by the major contributions participants made in their home country institutions and sectors that multiplied opportunities, improved the learning environment, and raised hopes for young, upcoming professionals.

In our experience spanning 55 years, the greatest potential pitfalls of increasing aid for African higher education derive from the economic dependency of African governments and education institutions and their unequal bargaining power vis-à-vis the United States Government and, indeed, at times U.S. higher education institutions. This resource and power imbalance increases the odds that programs will not accurately reflect African priorities, will in-

corporate inappropriate U.S. models, or will disproportionately serve United States-based rather than African interests.

And further, our experience is that the question of what ought to be the substantive field or sectoral focus has been particularly prone to disagreement and sometimes tension between donors on the one hand and African recipients and other partners involved in an initiative. Historically, USAID, consistent with its mandate, has tended to focus on training and skills deemed to be directly relevant to economic development and less interested in providing support to, for example, research and scholarship in the arts and social sciences. But I doubt that any of us here in this country, notwithstanding our view that market competitiveness is important, would want to eliminate those things from the choices that we have in higher education.

And furthermore, we should recall that it was African intellectuals and scholars who, having analyzed and understood the problem of the post-colonial state, it was they who introduced the concept of governance, that is the need to focus on state/society relations and the accountability of African governments to their nations' citizens into the lexicon of the World Bank and development circles generally. It was not always considered an appropriate consideration. And this is one among many significant intellectual contributions that African social scientists have made to the development discourse and practice in spite of, rather than in collaboration with Western sponsors and technical assistance providers.

The fifth question and final question: What benefits to the continent could U.S. support for the expansion and improvement of colleges and universities bring?

This is a good place to conclude because it directs our attention to future possibilities. There is not a single development challenge facing Africa, and again Dr. McPherson has referred to this, whether it involves illiteracy, lack of access to quality education, the need to increase agricultural production, environmental degradation, conflict, AIDS, or underdeveloped private markets, that does not cry out for some form of capacity building.

Almost five decades of official United States support for tertiary education for Africans have yielded important lessons. I would like to call your attention to two.

One is that higher education is not the enemy of basic education and is, in fact, essential for quality education overall.

And the second is that long-term degree training is a high yield investment for the United States as well as for Africa.

In the case of higher education and basic education several other witnesses have discussed the importance of training for teachers which is a function of advanced education. If we are going to have teachers on the continent who are equipped to strengthen the pipeline through which students will flow to higher education institutions we have got to invest in their training. So the practical reality is that higher education is the highest leveraging point for strengthening performance all along the education pipeline.

Higher education is a high-yield investment for Africa and for the United States. And the benefit that we derive is something that we do not always focus upon, particularly in our discussions of Africa. Few American educators would disagree that the depth and

quality of intellectual inquiry and the diversity of social interaction on American university campuses is greatly enriched by the presence and involvement of foreign faculty and students, including those from Africa.

The greatest problems facing the globe exist in parts of the world, particularly Africa, that possess the lowest levels of capacity in terms of skills and resources needed to address these problems. For United States higher education institutions to maintain their global competitive edge in preparing young Americans for work and life in this age of globalization they need greater exposure to Africa's realities and African thinkers.

Mr. Chairman and members, I want to congratulate you on this exploration of a set of issues with far-reaching implications for African development, United States-Africa relations and global education. And again, I thank you for the invitation to share my views. [The prepared statement of Ms. McLean follows:]

PREPARED STATEMENT OF MORA MCLEAN, ESQ., PRESIDENT AND CHIEF EXECUTIVE OFFICER, THE AFRICA-AMERICA INSTITUTE

Chairman Payne, Congressman Smith and members of the sub-Committee, I want to thank you for this opportunity to testify before you today on a topic that has been at the core of The Africa-America Institute's mission for the past 55 years.

I was asked to address five questions: (1) What is the state of higher education in sub-Saharan Africa; (2) What are the major challenges facing African colleges and universities; (3) What types of support should the international community provide African colleges and universities to enable them to provide higher quality education to a greater number of students; (4) Are there potential pitfalls to increasing aid to African colleges and universities; and (5) What benefits to the continent could U.S. support for the expansion and improvement of colleges and universities bring?

This is a lot of territory to cover in these remarks, so in my oral presentation I will only to touch on each of them.

- (1) What is the state of higher education in sub-Saharan Africa; and
- (2) What are the major challenges facing African colleges and universities

It is rarely safe to generalize about Africa with its unsurpassed levels of complexity and degrees of diversity. This is especially so when it comes to the topic of human capacity building through education. Real conditions on the ground vary across and within sub-regions, countries, government bureaucracies, systems of education and individual education institutions.

There is, however, a general consensus that the overarching challenge confronting African higher education is inadequate capacity to meet demand—in terms of access and quality of the learning and output:

Over the last decade, the growth in the global demand for higher education has been spectacular, but especially in Africa where tertiary enrollment is growing at a faster rate than anywhere else in the world. But in percentage and real terms the extent of African participation in tertiary education is still very low: The gross enrollment ratio for Africa is 5%, meaning that out of every 100 adults of tertiary age only five are enrolled in some sort of tertiary education program. This is as compared to gross enrollment ratios of 10% in South and West Asia and 69% in North America and Europe, respectively. (UNESCO Global Education Digest 2006)

African women face barriers that hamper their ability to progress from one educational level to another. The rate at which African women are enrolling in tertiary education programs is improving but is still hovers at only 40%.

The school life expectancy indicator, a measure that estimates the numbers of years of education a child can expect to receive at any given level (primary, secondary or tertiary), is especially useful because it facilitates comparisons across countries despite differences in their education systems. As you would expect, the tertiary school life expectancy in North America and Western Europe is higher than anywhere else in the world: it is three years, which is twice the global average. In East and Central Asia and the Pacific, the Arab States, Latin America and the Caribbean the average amount of time young people can expect to spend in tertiary education is about one year. But in sub-Saharan Africa (along with South and West Asia) young people spend an average 6 months or less in any kind of tertiary edu-

cation. This situation has remained virtually stagnant since the early 1990s. (UNESCO Global Education Digest 2006)

Africa's overall lack of capacity to meet higher education demand has contributed to the comparatively high rate at which students from the continent study abroad—three times the global average (an average outbound mobility ratio of 5.9%). This is but one dimension of what is referred to as the problem of “brain drain”—the emigration of Africa's most talented. (UNESCO Global Education Digest 2006)

The outbound mobility ratio is one real indication of the overall poor condition of tertiary education in Africa. But it is arguable that, in the long run, this trend will not result in a net loss for Africa. I will return to the issue of brain drain at a later point in this presentation.

Other frequently cited indicators that African higher education is lagging behind the rest of the world include: the fact that public spending in real terms and as a share of education spending and per student has fallen sharply; high unemployment among existing tertiary graduates; weak university governance and campuses plagued by recurrent and disruptive tensions, between administrators, faculty and students; and inadequate and deteriorating infrastructure.

But in our encounters with education leaders in Africa, the most frequently cited cause of the inability to meet education demand is the lack of resources for teacher training and development. The professoriate in African universities—made up of the last generation of academics to be trained during earlier more favorable times—is aging, and the problems of recruiting and retaining skilled and experienced faculty and administrative staff are becoming increasingly severe.

These challenges facing higher education in African countries are not new—they have been building for the past decade during which higher education has been neglected by African governments—largely at the behest of international donors. This brings me to the third question:

(3) *What types of support should the international community provide African colleges and universities to enable them to provide higher quality education to a greater number of students:*

The topic of this hearing was as relevant 50 years ago as it is today. There is a long and rich tradition of U.S. interest in and support for African higher education. Indeed, The Africa-America Institute (AAI) was established and became prominent during the early part of this history.

In 1952 *Time Magazine* reported a story about an Ethiopian university student in Kansas who had to travel 30 miles to get a haircut. Spurred by this account, and inspired by a collective desire to bolster the success of decolonization and the newly emerging independent nations on the African continent, a small multiracial group of Americans gathered in Washington DC to Institute of African-American Relations, the predecessor to AAI. AAI was part of a small vanguard of private organizations established by Americans to respond to the needs of foreign students, but was unique in its exclusive focus on Africa.

As one historian writes:

*“During its early years AAI initiated and administered a range of educational programs in Africa, designed to provide secondary and technical as well as university training. Its conference series which, starting in 1968, brought together influential Africans and U.S. citizens annually, its bi-monthly publication, Africa Report, its cooperative efforts with educational leaders in public and private schools, and its program to facilitate travel to Africa, are examples of the scope, variety and diversity of these programs.” (Evelyn Jones Rich, 1978)*

Education for Africans and about Africa has always been AAI's focus.

We work with some 421 partner institutions worldwide including higher education and professional training institutions spread across five continents: Africa, Australia, Europe and in North and South America. Eighty five percent of AAI's support comes from individual contributors, private foundations and companies that do business in Africa and the remaining 15 percent is overhead recoveries from small USAID contracts.

Before World War II churches and missionary bodies were the main sources of American support for African education at all levels. Official U.S. support for “educational and cultural exchange” broadly defined took off during the Cold War, and was influenced to some extent by earlier U.S. government initiatives targeted on Latin America.

In the late 50s, as Kenya was on the verge of political independence, a trade unionist named Thomas Joseph Mboya determined that the foundation for that east African nation's political and economic freedom would have to be built by women and men equipped with the skills to fortify and manage a new nation. With support

from a group called the African-American Student's Foundation and a grant from the Kennedy family foundation, Mboya organized the East African Airlifts. Between 1959 and 1960, the Airlifts transported over 400 African students, mainly from Kenya, to enroll in university programs in the United States.

The Airlifts had a profound impact on the scope and direction of U.S.-government sponsored scholarship programs for African students over the next several decades. As the 1957 chair of the Africa sub-committee of the Senate foreign Relations Committee, and thereafter as president, John F. Kenney vigorously advocated for support of African students. Speaking in 1961 Kennedy said:

*"There is no better way of helping new nations of Latin America, Africa, and Asia than by assisting them to develop their human resources through education. . . ."*

The aim of the Kennedy Administration was not simply to advance African development. Shortly after he took office in 1961, Kennedy supported the launching of the Southern African Student Program which he envisioned in part as essential to counter Soviet efforts to recruit the Angolan students who left Portugal at the beginning of the Angolan war of independence.

The Bureau of Educational and Cultural Affairs of the Department of State and the Agency for International Development were established as the two agencies chiefly responsible for funding the gradually increasing number of higher education programs for Africans.

These programs of support for African university and graduate students were administered by private organizations including AAI.

So it was that the United States government recognized and adopted education and cultural exchange as one of its most potent weapons in the ideological Cold War, as well as a critical means of advancing the development of market economies and democratic governance in developing countries, especially in Africa.

In the 1990s the end of the Cold War spurred renewed levels of US policy attention to Africa.

Through more than a decade and three successive White House Administrations, special efforts have been taken to increase Africa's policy profile. Measures were introduced to promote trade and investment, ultimately culminating in the African Growth and Opportunity Act; a steady decline in U.S. economic assistance to the continent was reversed; an unprecedented high-level attention was showered on Africa, with two Presidents visiting and numerous Cabinet-level officials traveling there.

But despite renewed policy attention to Africa, the overall proportion of Africans involved in all U.S.-sponsored international exchanges and training (however defined) remains low, both in absolute terms and relative to participants in other parts of the world, and Africa's own needs.

In fact USAID-sponsored international training programs for Africans have declined steadily and substantially over the past decade. African participant numbers fell by 75% from FY91 to FY00. Worldwide, USAID participant numbers fell 60% during the same period. The average duration of training also fell during this period, both worldwide and for Africa. USAID attributes the decline in its international training numbers to lower funding levels and a greater use of in-country training and training of trainers. USAID-sponsored academic training has almost entirely disappeared; participant numbers are down 85%, both worldwide and for the Africa region, reflecting in part a USAID strategic shift away from higher education and towards basic education.

While exchanges and training represent only one set of many foreign policy tools and resources, they are a particularly important means of U.S. engagement with Africa, given that Africa's human resource needs, and the mutual benefits of increased U.S.-Africa relations, are so great. The availability of exchange and training opportunities for Africans has a great bearing on the effectiveness of U.S. foreign aid, and yet is addressed, if at all, on indirectly within most of existing development programs.

I turn now to the 4th and 5th questions:

*(4) Are there potential pitfalls to increasing aid to African colleges and universities?*

In their state of economic dependency African governments has been held to an exceptionally high standard as donors demand demonstration of a direct causal link between higher education investments and economic growth.

For policy makers and politicians within and outside Africa, quantitative measures have special appeal because they provide a simple way of demonstrating progress to meet the high expectations of donor governments and their taxpaying citizens. But this is problematic because, as the authors of a recent Center for Global Development Working Paper on the topic observe:

*“Researchers have found it exceedingly difficult to get a good grip on two critical output measures—how to measure quality in higher education and how to determine the value added by higher education over and beyond the student’s innate abilities.”*

They go on, however, to conclude that “reducing the benefits of tertiary education simply to measurable economic payoffs would appear to be a rather impoverished vision.”

I heartily agree, and offer this quote from one AAI alumna, a South African university professor, to illustrate the point. She says:

*“Education is now widely acknowledged as the . . . resource needed . . . to expand our knowledge base and to discover the new, to exercise our intellectual capacity, to extract meaning [from] our world, expand our social and intellectual horizon, to gain insight, skills and knowledge which in turn can add value to our natural surroundings.”*

*“The educational opportunity provided to me by AAI empowered me with most if not all of these beneficial factors. But most importantly, education coupled with international experience liberated me from the inferiority complex baggage which I carried for years as a South African black woman.”*

Although it is frequently cited as a pitfall of choosing to support higher education for development, the absence of hard empirical proof of the social returns to tertiary education is offset by other data. In countries across the world the presence of strong higher education systems correlates with positive indices of development including greater technological advancement, political stability and social cohesion, and relatively high rates of successful entrepreneurship.

Support for African tertiary institutions that includes short and long-term scholarships for faculty and administrators to study abroad is often associated with another pitfall: the infamous brain drain. In the earlier section I cited the comparatively high rate at which Africans seek advanced academic and training opportunities outside of the Continent.

But contrary to the conventional wisdom, providing Africans with opportunities to study abroad does not inevitably lead to a permanent loss of talent from the Continent. Assuming otherwise obscures variations in the international flow of human capital, and it applies a double standard. The subtext of otherwise legitimate concerns about “brain drain”—the emigration of trained professionals—from Africa often seems to be that Africans should be discouraged, if not prevented from doing what other talented and ambitious people around the world have done from time immemorial, which is to seek to expand their horizons.

The intellectual frame of reference for Africans as for other intellectually curious people around the world is international as well as local.

In fact, analyses of human capital flows reveal that although people may leave home, they don’t necessarily do so permanently; and even when they do maintain permanent residence abroad, they are likely to contribute to improving conditions back home in significant ways. (Center for Global Development)

The validity of this research is borne out by our experience at The Africa-America Institute. AAI alumni—Africans who have benefited from AAI education programs—are high performers in academics and in their professions, and return to their home countries at the rate of 90 percent and higher. A 2004 impact assessment commissioned by the U.S. Agency for International Development found that its *“multi-million dollar investment in long-term training [through AFGRAD and ATLAS] for over 40 years produced significant and sustained changes that furthered African development in measurable ways.”* This assessment evaluated the results of programs that were managed by AAI, and that involved selection, placement, orientation monitoring and follow-on activities for Africans from 52 African countries. The study found, among other things, that “brain drain” was contained—not worsened—by the major contributions participants made in their home country institutions and sectors that multiplied opportunities, improved the learning environment, and raised hopes for young, upcoming professionals.” (See *Generations of Quiet Progress: The Development Impact of U.S. Long-Term University Training on Africa from 1963 to 2003*)

In our experience spanning 55 years, the greatest potential pitfalls of increasing aid for African higher education derive from the economic dependency of African governments and education institutions, and their unequal bargaining power vis a vis the U.S. government and U.S. higher education institutions. This resource and power imbalance increases the odds that programs will not accurately reflect African priorities (for example, ones that focus exclusively on industrial training or particular sectors deemed to coincide with economic growth and exclude the liberal arts); will incorporate inappropriate U.S. models ( for example, adoption of teacher

training techniques from the United States, notwithstanding the wide variations in quality and deficiencies in our own state-run systems); or will disproportionately serve U.S.-based rather than African interests (for example where a U.S. higher education institution's research objectives and desire to establish its international credentials overshadows an African institutions need for faculty and curriculum development in the subject area).

Our experience is that the question of what ought to be the substantive field or sectoral focus has been particularly prone to disagreement and tension among and between U.S. government agency sponsors, African donor recipients and U.S. higher education institutions. USAID has tended to be most concerned with training and skills deemed to be directly relevant to economic development, and less interested in providing support to, for example, research and scholarship in the arts and social sciences.

But we should recall, for example, that it was African intellectuals and scholars who, having analyzed and understood the problem of the state, introduced the concept of governance—that is the need to focus on state society relations and the accountability of African governments to their nations' citizens—into the lexicon of the World Bank and development circles generally. This is one among many significant intellectual contributions that African social scientists have made to the development discourse and practice, in spite of rather than in collaboration with Western sponsors and technical assistance providers.

(5) *What benefits to the continent could U.S. support for the expansion and improvement of colleges and universities bring?*

This fifth and final question is a good place to conclude because it directs our attention to future possibilities. There is not a single development challenge facing Africa—whether it involves illiteracy, lack of access to quality education, the need to increase agricultural production, environmental degradation, conflict, HIV/AIDS, or underdeveloped private markets—that does not cry out for some form of capacity-building.

Almost six decades of official U.S. support for tertiary education for Africans have yielded important lessons. I would like to call your attention to two lessons that, if heeded, can result in substantial benefits flowing in multiple directions:

The lessons are that: 1) Higher education is not the enemy of basic education, and is essential for quality education overall; and 2) Long-term degree training is a high-yield investment for the United States as well as for Africa.

*Lesson # 1—Higher education is not the enemy of basic education, and is essential for quality overall:*

The misconception—that higher education can only be strengthened at the expense of basic education—is the unintended consequence of cost-benefit analyses that have led donors and African governments to choose one over the other, rather than address the problems of education systems holistically.

This has led to overemphasis on educational access and attainment—a tendency to measure results in terms of the number of children in school and the amount of schooling they acquire, rather than in terms of student performance and quality of output. But as we have seen, sacrificing quality education for quantity is counter-productive, and often leads to other problems.

I recently received a letter from one senior African government official who laments that his country:

*“has a serious backlog, dating back to the colonial era, in terms of human resource development. The Government . . . has expended substantial resources, about 30 percent of [the] national budget since independence, to address this situation. The efforts of Government and other stakeholders notwithstanding, the education sector continues to experience serious problems as evidenced by low pass rate in secondary schools and other indicators.”*

This experience is widespread across the African continent, with under-resourced systems struggling to respond to increasing student enrollments and with high dropout rates.

Lessons learned from the undue attention to quantity also helped to transform the United Nations-inspired Education for All (EFA) movement from a global commitment to simply provide primary education for all children and reduce adult illiteracy, to one explicitly aimed at achieving *quality* basic education for all by 2015.

Moreover, a key ingredient of quality education is quality *teaching*, which in turn is a function of advanced training for teachers and school administrators. The practical reality is that *higher education is the highest leveraging point for strengthening performance all along the education pipeline.*



*Lesson # 2—Long-term degree training is a high-yield investment that yields reciprocal benefits for the United States as well as African countries:*

We at AAI would strongly urge the adoption programs that entail a mix of interventions, *including* scholarships for individuals to study in the United States or elsewhere. Institutions are only as efficient and capable as the individuals responsible for operating and maintaining them.

Our ongoing experience with operating the Namibian Government Scholarship Training Program and the Ford Foundation-sponsored International Fellowship Program has been equally positive. The Africans students who qualify for the graduate degree scholarships provided under these programs take advantage of opportunities to study in Europe and North and South America as well as Africa, and they do well and return home eager and able to make significant contributions to the development of their home countries—and to help solve global problems.

Lastly, all too often we here in the United States fail to appreciate the benefits that we stand to gain from engaging intellectually with Africans. Few American educators would disagree that the depth and quality of intellectual inquiry and depth and diversity of social interaction on American university campuses is greatly enriched by the presence and involvement of foreign faculty and students.

The greatest problems facing the globe exist in parts of the world, including Africa, that possess the lowest levels of capacity in terms of the skills and resources needed to address these problems. For U.S. higher education institutions to maintain their global competitive edge in preparing young Americans for work and life in the age of globalization, they need greater exposure to Africa's realities and African thinkers.

Mr. Chairman and Congressman Smith I want to congratulate you on this bi-partisan exploration of a set of issues with far-reaching implications for African development, U.S.-Africa relations and global education. Again, I thank you for the invitation to testify.

Mr. PAYNE. Well let me thank each of the witnesses for their fine testimony.

Let me ask the other two panelists since Ms. McLean did give us a pretty thorough position on her view of the drain, the brain drain, what are your views on it and is there any way that we could somehow reverse it to some degree? And maybe even, Ms. McLean, even though you did indicate that it is natural and that it happens everywhere: Are there any kinds of programs or ideas or incentives that we might do in order to reverse this question? We see it a great deal where Caribbean countries actually complain to us in the Western Hemisphere Subcommittee that they spend a lot of money training their nurses and getting them through elementary, secondary school, and then into a professional school, and as soon as they graduate many go off to London or New York, creating a problem in their home nations.

So I just wonder if the other panelists have an idea on it and how we can deal with it. Yes, Dr. McPherson?

Mr. MCPHERSON. I start off with the deep belief that higher education is important to build a country, as we have all stated here. So you have got to do it. We have got to put the money into it. I also think it is inevitable that there is going to be some brain drain, but I think there is going to be something left too that is critical to build a country. I sort of look at it as a question of do you have a glass two-thirds of the way full or do you have an empty glass? We cannot afford not to do it, therefore it is important to do.

I think the history is reasonably clear as to patterns of brain drain over in various countries, and that is the more opportunity there is to stay, the more people will stay and in fact come home. We are getting a lot of Asian folks going back to Korea, Taiwan, so forth in the last few years because of the opportunity. In short,

this is a chicken and egg in some senses on development. Brain drain you have to do the development, you are going to experience some brain drain and you will probably begin to balance off the problem in time. As I say, I really think it does make sense. Since you have to have it, are you going to have a glass half full or two-thirds of the way full or just nothing in it?

Mr. PAYNE. Thank you. Yes.

Mr. BABU. If I can add to that, one of the reasons why the professionals want to go abroad to study rather than study locally is the quality of education, or at least their perception of the quality of education locally. And even if you offer scholarships, for example, in the University of Malawi, they would say, "I am studying here, I want to get a United States degree or a European degree because that is valuable, that is high quality."

So one of the things that we could do quickly is to bring quality to the education locally so that people have confidence in their higher education system, which means we need to revise the curriculum, make it more meaningful and relevant for the economies, contextualize them. And that requires partnerships. And there is so much wealth of knowledge in this country, for example, in the higher education system, that is available on the Internet and so on. How do we tap into it, how do we bring partnerships, create a national grid in African countries, or regional grid so that professional teachers and sectional designers can come together and create local content and increase the quality of education in Africa? This is something that we can have quick wins over so that the quality of education and the credibility of education can go up.

And now with the Internet and communication technologies, we can create portals within Africa that can easily translate the knowledge that we have in the universities and contextualize them through partnership arrangements so that we can teach the current knowledge and revise the knowledge in a dynamic fashion to meet the capacity needs in Africa.

Thank you.

Mr. MCPHERSON. I really think the idea of connecting the African academic community and intellectual leadership of the country to the global community is in fact a way to prevent some brain drain.

Ms. MCLEAN. I neglected to say that, while I do not think that brain drain is either a horrible thing or something that can be prevented altogether, in our programs at AAI we have a 90 percent or higher return rate. And that has to do with certain kinds of interventions and ways of approaching this.

First, I would say that although I think study abroad opportunities ought to be made widely available that it is, the return is highest if you focus post-undergraduate. Our experience is that undergraduates are more likely than others to not go home, partly because—as is true of other people around the world—that is a point in their lives where they do not have family and professional ties that are likely to keep them in one place. So a greater focus at the master's and Ph.D. level really does increase exponentially the likelihood that people will return home.

It also helps to ensure that at the beginning of the study that it is not just that you are handing a check but this is part of a comprehensive program which helps individuals to sustain links with

institutions and other senior professionals in their field at home. Assurances of employment help significantly. And as others have mentioned, access to global sources of knowledge and to other professionals through the information technologies is another key addition.

Mr. PAYNE. Thank you very much.

Let me ask my colleague Ms. Watson.

Ms. WATSON. I was just sitting here listening—thank you, Mr. Chairman—to your recommendations and suggestions and wondering how do we get a hold on this through the programs that we would sponsor, knowing that the need on the continent varies according to the region you are in?

One of the things that concerns me right now is the world food supply. And I think next weekend a group of us are going down to Haiti because we know the condition right here in our hemisphere. And I am thinking about our efforts in Africa, would you say, and I would like all three of you to respond to this, should we develop a realistic educational program through USAID to meet the current needs to end hunger worldwide, but particularly on this continent, would you think that we ought to support agricultural development education along with intellectual education, but would you think we should set that as a priority? Because I am quite concerned.

And let us just start with Dr. McPherson and move down to the other witnesses.

Mr. MCPHERSON. Thank you. It is an excellent question, Congresswoman. Yes, I do think we should. It was really an important grant that the Gates Foundation provided my organization here just a few days ago to essentially plan a grant framework for strengthening agriculture, education and research problem solving in African universities. I think follow-on grants from foundation, from the government to do this is very important.

Africa has the lowest per hectare agriculture production of any continent in the world. It is half; I think maybe even 25 percent that of stronger areas in Asia. Southern Africa over the next generation should be one of the other bread baskets of the world, sort of like our Midwest, parts of Argentina, Brazil, the Ukraine and so forth. And it can be done but it is going to take substantial investments, policies, feeder roads, all kinds of things. But in that, Madam Congresswoman, is an education component not unlike some of the work that we did with the land-grant universities over generations in this country.

Ms. WATSON. If I may just intervene. Mr. Chairman, I think that is a call to the floor for a vote. I am wondering if my questions could be responded to in writing so that we could go down. Because how do we set priorities where we want to go, and I think Dr. McPherson is giving us the idea, the impetus as to where we could best invest to make a difference. And so if you could respond in writing.

Mr. PAYNE. Right. And maybe we could yield to the gentle lady from Texas; she has a quick question and then we could adjourn.

Ms. JACKSON LEE. Well thank you very much, Mr. Chairman. I think we have certainly highlighted one of the Achilles heels of our efforts in building trade, African Growth and Opportunity Act, a great initiative. But certainly out of opportunities for trade should

be the benefits to the people. And higher education clearly is, if you will, the stair step to opportunities.

And let me put on the record my concern, and I am very grateful that primary and secondary education is improving on the continent and that we have overcrowded classrooms. I am grateful because children are wanting to learn. But I also want to put on the record that that is an important issue we have to address, particularly as I understand it that primary and secondary education is still fee driven. When you travel to the continent many will indicate that they are not even able to go to that level because they cannot pay for books and fees and otherwise. So I hope we embrace, and I believe we are embracing all of these issues.

As relates to higher education I would like to hear your thoughts on the utilization of the African Union and whether or not you have any knowledge whether they have a component that responds to the global needs in higher education for the continent? It seems that that would be a very good partner for us to have.

My second question is, I am knowledgeable of the educational system in Nigeria and Ghana in particular. They have had institutions of higher learning for a very long time. I am not as familiar with South Africa. I just imagine because of its sophistication it would be too. What is the cross-pollenization, meaning bringing students from other African countries to places like Nigeria and Ghana, helping them to expand their system of higher education so that it has cutting edge facilities or cutting edge faculty members because they are drawing from a larger student body? To Dr. Babu and Ms. McLean, and if Dr. McPherson do you have any insight please do not hesitate. Dr. Babu?

Mr. BABU. Thank you. That is a very useful question. We have talked about regional centers of excellence because not all the countries can be excellent in every field. Even in the countries that we are dealing with, the capacities are scattered. There are some excellent chemists in a few universities, and in some other universities we do not have any chemistry professors, for example. So how do we combine this capacity that is still on the ground into form, for example, regional networks of professors who could actually teach on a regional basis?

And that has worked. One example is African Economic Research Consortium. This is for the economics field, and they have come together to organize themselves, to bring the talent within Africa to each, a wide range of countries who can get together in one place. And that is the center of an excellent approach. That could be done in Nigeria or in Ghana or in Nairobi or wherever we feel like it. I totally support that idea. And it does work.

And in that process we can build in the next 10 years, 10 to 15 years, capacities that are needed for usual countries where at least one public university is good in all the fields that we would like to see. So that regional approach or center for an excellent approach is very important.

One pitfall in that is it is not owned by anybody. So it depends on external funding. So we have to anchor it in one of the states, one of the countries that will take responsibility for its long-range sustainability. And that has to come from the governments them-

selves, but the regional approach in my opinion has worked very well, even in agricultural fields, and it is a good place to start.

Thank you.

Ms. JACKSON LEE. Ms. McLean.

Ms. MCLEAN. One of the unfortunate ironies is that there is perhaps less cross-pollenization occurring today than occurred 50 years ago. A good portion of the ageing professorate are people who were trained at East African and Nigerian institutions, for example, the University of Dar es Salaam in Tanzania. But there is nevertheless a lot of ongoing activity and interest in this.

There are fora on the continent for people in universities to collaborate across borders. There is the Association of African Universities based in Accra. There are several sub-regional associations. I know that the Southern African university vice chancellors are a very active group. There is even a group emerging of private institutions that are fee based. So there is a lot that is already taking place that we could help to support. And I would heartily urge that we not recreate the wheel and we look at what people are already focusing upon.

And if I may, while Congresswoman Watson is still here, I am going to be the one contrarian to some extent on this issue of focusing sectorially. And I will submit my written remarks. But I will say that you have to proceed with very great caution because you can cause distortions. And we have seen that occur in the case of the singular focus on HIV/AIDS. But I will submit some written remarks.

Ms. JACKSON LEE. Dr. McPherson.

Mr. MCPHERSON. Several things. One, I think I probably would not disagree with Ms. McLean too much really. I think you need to be sure your agriculture, healthcare, primary teacher education programs, etc., are strong and partnerships can help do that. But that overall administrative structure of the university at Addis needs to be capable of dealing with things. So that tension between sector and strengthening the institution is a good one to keep in mind. And I appreciate it.

Secondly, the regional work. In January my colleagues and I spent some time at Addis at the African University with the people responsible for this area. They have some very competent people. I was struck particularly by a couple who really understood, at least seemed to know the continent very carefully. I think we have to make sure, and there are other regional structures that you can work with, where does NEPAD fit into this, where does the francophone part of Africa have another organization, and so forth. We do not want to try to recreate those, as was just said.

I think we have to be careful we do not have too much overhead too. I mean, one of the reasons I love these partnerships that work so well that USAID did in the beginning with Point Four into the 1980s was that they were partnerships, there was not a lot of people in between or involved between the African entity and the United States university. Nevertheless, there are some real things to learn. And incidentally, there are some lessons from our own states. There are only some 21 or 22 vet schools in this country, and of course we have 50 states. There is a lot of sharing of vet school graduates around because vet schools are so expensive to

run. Having run one at Michigan State I can tell you about those costs.

That same concept is applicable in a number of areas. In Texas you know the Texas system has schools with various functions within the system, sometimes in tension or at argument, but collaboration across national, international borders is a real concept.

I would make one last quick comment here about this, Mr. Chairman. I am convinced that the explosion of higher education in Africa, the requirement is going to force consideration of different, maybe a lot different delivery models of higher education than what is traditional. I look at how my grandchildren use Dungeons and Dragons and the games that they play, and in fact I know that Udoff at Texas before he left was thinking about how he could use games to educate more completely. What about CD ROMS we have tried onsite, so on and so forth? That we, I think the U.S., have got to keep the costs of higher education in this country down. I think we may end up finding we can learn some lessons from a very different world because we too have some real pressures on it. And this is not just our giving but our learning too perhaps.

Ms. JACKSON LEE. Thank you, Mr. Chairman. Thanks to the witnesses. Thank the witnesses for their responses.

Mr. PAYNE. Let me thank the witnesses very much. I do think though that we, for example, Ms. McLean talked about the concentration on HIV and AIDS, we were able to realize in our reauthorization that there needed to be expansion. But in addition, we were able to craft a nutrition component—which was excluded in the original authorization—because of the fact that we need nutrition. We were able to get a component to deal with water and sanitation in the new legislation. And so we have been able to expand from the original HIV and AIDS, and are now focused on the broader issues.

But once again let me thank the witnesses. We are going to move forward. We have a goal of attempting to get higher education into a higher priority here in Africa in our USAID programs. We have the Education for All Initiative that started in 2007 with elementary and secondary. But we need to really expand it to higher education.

So once again, thank you all, and we will continue to work with your organizations to assist us as we move forward to try to create the legislation necessary for implementation. The meeting stands adjourned.

[Whereupon, at 12:01 p.m., the subcommittee was adjourned.]

