
Task Force Meeting

of

LEGISLATIVE TASK FORCE ON HIGHER EDUCATION AND THE ECONOMY

"Testimony on options for merging the University of Medicine and Dentistry of New Jersey; the New Jersey Institute of Technology; and Rutgers, The State University of New Jersey"

LOCATION: Committee Room 4
State House Annex
Trenton, New Jersey

DATE: November 9, 2006
2:00 p.m.

MEMBERS OF TASK FORCE PRESENT:

Senator Raymond J. Lesniak, Co-Chair
Assemblyman Wilfredo Caraballo, Co-Chair
Senator Loretta Weinberg
Senator Nicholas Asselta
Senator Robert J. Martin
Assemblyman Patrick J. Diegnan Jr.
Assemblywoman Pamela R. Lampitt
Assemblywoman Jennifer Beck
Assemblywoman Marcia A. Karrow



ALSO PRESENT:

Osomo A. Thomas
Sarah B. Haimowitz
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Task Force Aides

Brian Alpert
Senate Republican
Task Force Aide

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SENATOR RAYMOND J. LESNIAK (Co-Chair): Okay.
Could everyone please take your seats? We're about to begin.

President McCormick is all nervous about the game tonight.

Would you please turn all of your cell phones off -- to get started.

I have one preliminary announcement, and that is that I was told, Assemblyman, that -- President McCormick, you should be aware of this -- that Rutgers has as much chance of beating Louisville tonight as the Democrats have of taking control of the Senate and the House. (laughter)

ASSEMBLYMAN WILFREDO CARABALLO (Co-Chair):
Wow. (laughter)

UNIDENTIFIED PERSON FROM TASK FORCE: Can I protest that comment? (laughter)

ASSEMBLYMAN CARABALLO: You protest that fact. (laughter)

SENATOR LESNIAK: Thank you all for coming.

I just want to say a few words before I turn it over to the Assemblyman, other members, for introductory statements. About a couple a years ago, Dr. Vagelos was kind enough to lend his expertise and hard work on a mission charge, given by Governor McGreevey, to look at the higher education system in New Jersey and make recommendations towards bringing both the State University and the Medical Universities to a higher standard; to improve not only the quality of education, but also the economic benefits that that can afford to the State, believing that the current structure may not be optimal.

Dr. Vagelos put in a lot of work and effort into preparing a report. At that time, for various different reasons, nothing happened. However, now Assemblyman Caraballo and I have been appointed by our respective Speaker, and President of the Senate to visit this issue again, thinking that we can improve higher education for all of our residents, and at the same time improve the economy of the state. And that is our mission. We have asked Dr. Vagelos to start off the testimony today, to be followed by President McCormick, President Vladeck, and President Altenkirch.

We will have our next meeting on December 19. And anyone who wishes to testify at that should contact either Committee staff or one of the members of the Commission so that we could follow up with our mission.

Assemblyman Caraballo.

ASSEMBLYMAN CARABALLO: Thank you, Senator.

Welcome everyone.

I've been -- spent most of my adult life in academia, and specifically in academia here in New Jersey. And one of the things that I have always treasured is the wealth of institutions that we have that play a tremendous role in the development of this state. I don't think that we've tapped into our resources as much and as well as we could have, or we could. And I'm hoping that what we are beginning today is just that -- the beginning of a process which hopefully will lead to our being able to tap into the great wealth that exists in this state from our various institutions.

I must tell everyone, I don't have any predisposed ideas to where this should wind up. I believe in the process that I engage in when I

wear my other hat as a law professor. I start asking questions, I hear facts, I hear opinions; and it isn't until that point that I start trying to figure out where I should be on any given point. So I guarantee you that I have an open mind. I'm hoping to be educated. I'm hoping to be challenged. I'm hoping to be excited by this process.

And it's indeed an honor to be co-chairing this with you, Senator Lesniak.

SENATOR LESNIAK: Thank you.

Thank you, Assemblyman.

Senator Martin, do you have any opening comments?

Senator Martin, you have seniority over Senator Asselta, so I'm calling you first.

SENATOR MARTIN: Well, I'm glad I have some status. (laughter) But I'm sure Senator Asselta will have a lot of valuable input.

I just think this is an opportunity to really look at the structure of how our tax dollars and how our public purpose is served by our public universities. And so I'm very interested in seeing whether change is appropriate. I share with Assemblyman Caraballo the fact--

I have a defunct-- (referring to PA microphone)

SENATOR LESNIAK: Try it again.

SENATOR MARTIN: Okay.

So I don't know whether I said anything relevant up to now. (laughter) But in any event, I do look forward to the process. I, like Assemblyman Caraballo, will try to keep an open mind. I do think there's some synergies that could be brought together by using the resources of our

great universities, and I'll be interested to see what the comments are that talk about those opportunities.

Thank you.

ASSEMBLYMAN CARABALLO: At this time, Assemblyman Diegnan, would you like to say something.

ASSEMBLYMAN DIEGNAN: Yes, briefly.

I'm the Chair of the Higher Education Committee in the Assembly. I don't believe that anything better identifies a state than the quality of its higher education. And I, like Freddy, do have an open mind. But I do think that we really need to address the structure of our higher education. Particularly, I'm sure all of us are concerned about the continuing issues affecting UMDNJ. And I think that this Committee, with the quality of the folks that are serving on it, we hopefully can come up with some suggested solutions to that particular problem. When all is said and done, I think this is going to be a good news story for the State of New Jersey, and it's going to make our higher education even better and more respected than it is. And I'm really happy to be serving on this Committee.

SENATOR LESNIAK: Thank you.

ASSEMBLYMAN CARABALLO: Thank you.

Senator.

SENATOR ASSELTA: Thank you, Mr. Chairmen.

Let me first thank Senate President Codey for putting together this Task Force -- as Speaker Roberts. I think just the mere fact of its title -- *Legislative Task Force on Higher Education and the Economy* -- and I think that's significant, because we need to understand the relationship between education, higher education, and our state's economy if we're going to

improve our well being here in the state, budgetary wise. So that alone tells me that this is a very important Committee, and I wanted to be part of it.

I just want to run, real quick, a couple of ideas that came to mind. I think it's important and it's eminent that we -- change is eminent here -- consolidation, efficiency. All that translates into lower education costs for our students is imperative, if we're going to continue to keep students here in New Jersey, going to higher education institutions. Those issues are really appropriate at this point in time in light of the reports that are going to be given to us November 15 from those four respective Committees. So this is a very important Committee to follow through and follow up with consolidation, regionalization, and most importantly, efficiency.

So, thank you, Mr. Chairman, for chairing this; and Associate Chair, thank you. I'm proud to be on this Committee.

SENATOR LESNIAK: Thank you, Senator.

ASSEMBLYMAN CARABALLO: Assemblywoman Lampitt.

ASSEMBLYWOMAN LAMPITT: Good afternoon, everybody.

When I got the phone call to actually be asked to participate on this Committee, I was standing on the streets of West Philadelphia embracing the new freshmen arriving at the University of Penn. And there's no better feeling than looking at the young minds coming to a university, and showing the fact that we are there to shape and mold them, to make them a participant in our future. And so, of course, I said, "Yes," and here I am.

I think it's very exciting. I've lived my life in higher education. I believe that one of the aspects I was just talking about, with a board

member at Rutgers -- it's also very important, as we're looking at all of this, to see about how we're embracing the communities that are surrounding these universities. Because if we're not embracing our communities to support these universities, then we're missing out on an opportunity. So in terms of economic development, it's an integral part of the picture in the landscape that we need to be addressing.

So I'm thrilled to be here as well.

Thank you.

ASSEMBLYMAN CARABALLO: Oh.

Senator Weinberg, welcome. You're up.

SENATOR WEINBERG: Thank you, to both Chairpersons.

I am delighted to be serving on this Committee also. I have some long history with at least a portion of the issues that we are going to be discussing over the next few months. I'm also a graduate of the University of California, so I know what that model is like from a student's perspective -- if I can remember back that far, and I think I can.

And then there's an added advantage. We have two Assemblywomen whom I've never had the opportunity of serving with, since they came into the Assembly after I moved into the Senate. So I'm delighted to be able to have the opportunity of serving on a Committee with both of you. Assemblyman Diegnan and Assemblyman Caraballo I have had the opportunity of serving with, and I'm here in spite of both of you. (laughter)

SENATOR LESNIAK: Thank you, Senator.

ASSEMBLYMAN CARABALLO: Thank you.

SENATOR WEINBERG: You're welcome.

ASSEMBLYMAN CARABALLO: Thank you, I think.
Assemblywoman Karrow.

ASSEMBLYWOMAN KARROW: I'll pass, thank you.

ASSEMBLYMAN CARABALLO: All right.

SENATOR LESNIAK: Dr. Vagelos, again I want to thank you for all the effort you've put into studying this issue, and I believe that it will not go to -- unfulfilled, thanks to the work of this Committee and the people in this room.

Dr. Vagelos.

P. R O Y V A G E L O S, M.D.: Thanks, Senator Lesniak and Assemblyman Caraballo.

As many of you know, a number of years ago, 2002, Governor McGreevey asked me to form a Commission to look at the level of the higher education -- really the health-related universities and the research universities -- of the state, and to give an opinion as to where they are in quality and competitiveness, because of the importance of the universities on the economy of the state. And we did that. We pulled together a Commission at that time. One of our members is here, Cliff Lacey. But it was, in addition to Cliff, a distinguished group of people who were involved in academic medicine at universities, including the former president of Princeton, Harold Shapiro; the former deans of medical schools at the University of Pennsylvania; the head of the joint hospitals called The Partners at Harvard, Sam Thier; Bill Kelley, University of Pennsylvania, the Dean and Senior Vice President there for the whole health system. So we had people who were very heavy hitters on this group.

We did two things: First, they visited the schools that were to be examined. And we started, of course, with UMDNJ, because that was to be the focus. And that took most of our effort, actually. We went to UMDNJ and Rutgers, and a timely -- relatively small amount of effort and time with NJIT. We then went outside, because we were asked to do comparative studies as well, and we visited some of the great state university systems, such as the University of California, the University of Texas, the University of Michigan, the Oregon Health Sciences University, etc. So we covered the landscape. In addition to visits, we wrote, we got information, and of course read all the literature. So this is where we came out.

Starting first at UMDNJ, we found, of course, that it spread across three campuses; and is lead very strongly from the center, which is in Newark. By the way, what I'm telling you today are the facts that we had as of the time we finished at the end of year 2002. So the changes that may have occurred may have changed some of the facts that I explained to you. But I'll tell you where we were at that time, which was the basis for our recommendations.

UMDNJ on three campuses: Newark, New Brunswick -- Piscataway, that is -- and of course Camden; and when we visited each, we learned that each of them is very strong in community service, and that is one of the strengths of UMDNJ. They do a good job in serving the people of their communities.

I'll just say a few words about each of the campuses. In Newark, we have the New Jersey Medical School and, of course, the University Hospital. They work closely together and they're, of course --

they both are owned by the State. Here we have a group that does, I would say, a good job in education. They do an excellent job in service. Their research is not very strong. It is not one of the great medical centers of the United States; it's very modest. Although it has some great strengths -- it has strengths in areas of microbiology and the potential for studies of bioterrorism. It's very good on trauma, in both their faculty and their hospital -- do a good job of that. They have strengths in a number of other places -- neurosciences is quite strong. But insofar as a research university, the kind of university that's going to produce the kind of new knowledge and exciting people in the biomedical sciences, that doesn't happen very often in our school system and in our medical system in Newark.

Now, there are other -- I'm going to target specifically the medical schools, although you will understand there are nursing schools, dental schools, schools of health professions -- health-related professions; and they're all part of UMDNJ and they're spread across these three campuses. But the strength of the University, and the strength of the State in what they need to derive for their economy and for attracting students and patients, is the medical school and the hospitals.

So, please, interrupt me anywhere along the line.

Next is the center of the state, and that is, of course, Piscataway. The UMDNJ there is principally Robert Wood Johnson Medical School. That is the strongest of our medical schools, and that does a very good job in teaching the students. It does good service work. The research is modest -- it's not one of the great medical centers of the United States as a public research university, although there are strengths. Some of the strengths are evident in centers, such as the Center for Advanced

Biotechnology and Medicine, the New Jersey Cancer Institute. I mean, they're a (indiscernible) side of strength. But across the board, we do not have the muscular medical school that some of the great state universities have.

Finally, down in Camden, we have the School of Osteopathic Medicine; and we also finish a two-year program for allopathic medicine at Cooper Hospital there. The School for Osteopathic Medicine is centered in Stratford, which is about 20 miles from Camden. It's a good osteopathic school, does a trivial amount of research -- although it's very close to the top of osteopathic medicines in the amount of research it does, but that osteopathic schools do not do the kind of modern biomedical research that raises the level of medicine in the state or the nation. So we have a relatively weak situation in Camden.

Now, that was-- I can, as I said, answer any questions that you will have on UMDNJ, or we can come back later. But let me go on to Rutgers. We spent most of our time on UMDNJ. And across the board, I would say the conclusion, on the average, is that we have a modest medical school system, which can produce students, but does a modest amount of research. The best of the group are in the New Jersey-Piscataway area, and less so in Newark, and the least in Camden.

Then we went to Rutgers, and this was-- The idea here was to see what's going on in biomedical research and what is going on in the rest of the University. That was, for me, a wonderful experience. Rutgers is a strong State University -- about the middle of the Association of American Universities as state universities -- and does a very good job in many areas. It has strengths in physics, in mathematics, in history, and English -- a

number of subjects are done very well. There are a number of centers there. So it is a very good University.

As we went around and talked with the faculty and we said, “You know, you’re a very good University. What would it take to be a great university?” And it was a uniform reaction. “We have to have a medical school. We have to have a medical school.” And the-- Why? Because the amount of interaction that’s required both for teaching the students -- the undergraduates and the graduate students -- and for doing research -- the kind of research that draws in dollars, national dollars from the National Institutes of Health, from the National Science Foundation, from other foundations -- has enormously increased. If you increase the interaction between the scientist and the critical mass of scientists-- And here, while there is some interaction that goes on between the people of Rutgers -- biomedical scientists and the other scientists -- with the people in Robert Wood Johnson Medical School, it’s not what it should be. And so both the researchers suffer and the students suffer from not having a better fit as it would -- as might occur if one had a university with both these components. So in the middle, we have the strongest of the Rutgers’ campuses, and it’s a very good place.

As we go south, again, things become weaker in the Camden area. There’s a Rutgers there. The association for the interactions is kind of attenuated because Stratford is 20 miles away. But there’s a law school there, a business school, and an arts and sciences; and the quality of the faculty and students is modest at best. And so we have the weakest and the smallest of the components in the south.

So that's where we were from the point of view of findings. And I can give you any amount of additional information that you might ask. At that point, we looked to see what characterizes the great State universities. The University of California was mentioned. That is my ideal, I would say, because perhaps I've been watching it for so many years, and I know so many people there, by reputation and personally. And so we looked at that. We looked at the University of Texas. We looked at all these places, and we concluded that there is one thing that makes a lot of sense for New Jersey, and could really catalyze the rebirth of the kind of excitement when institutions really feel their oats. And that is to go to Newark and put together these three universities that sit adjacent to each other with contiguous campuses, but do not interact optimally because of -- it's just harder when you're in a different university and there are administrative hassles to get it done to do research. Together NJIT, Rutgers, and New Jersey Medical School, with its hospital could, form one university right smack in the middle of Newark. This would turn on the interactions between the faculty.

When we talked with the people in NJIT -- and we have the President of NJIT, so he can react to this -- when we talked to the faculty, they saw their future -- which is of course engineering, architecture, computers, and applied engineering -- many of them saw their future in association with biology and biomedical sciences. And they love the interactions with the radiologists at the medical school and the hospital, and that sort of thing. So they yearn for this open interaction and close relationship that could occur if there were one university.

My recommendation here would be to put these three together, to have this catalyze the continued improvement in Newark, which has been stimulated by the growth of the New Jersey Performing Arts Center, improvements in the museum, the orchestra's improvement, the sports things-- The impact of additional research, a higher-quality faculty -- who could be attracted with a more stimulating university and additional and diverse students, who could be brought to that university -- that excitement would turn on, and have a greater economic impact by far, I would say, than the combination of the NJPAC, the orchestra, the museum, and all the sports things you could bring to the city.

And the example -- and it was mentioned earlier by the Assemblywoman who was visiting Philadelphia and watched the return of students to the University of Pennsylvania -- the economic engine of West Philadelphia is the University of Pennsylvania. There is no question about that. It's the largest employer. And the businesses that come out of that -- with their School of Medicine, their Wharton School of Business, their Law School -- what's coming out of there is just fabulous, and it just turns on the whole city.

The same is true of Washington University, another place that I was very-- I was an undergrad at Penn, by the way, so I know that place. The other place I know very well is Washington University, at St. Louis. If you were to pull Washington University out of St. Louis, St. Louis would dry up and then go away. It would float down the Mississippi River. Because that is the engine, that's the only thing that remains there, actually, as big businesses have had some difficulties.

And so we need an economic engine in Newark, and this could be it. And I feel very strongly about that. So that would need additional, of course, investments. It's needs more buildings. It needs additional faculty to build that up, and it will take time. You do not improve quality merely by getting people to work together initially. It will take time. You get them working together, bringing in more research funds, attracting greater students, and building the institution around them.

Okay, now we go to the middle of the state, and that would be another -- and I would see these as rather autonomous universities. One in the north, University of New Jersey, of Newark; one in the middle, which would be Rutgers, of course -- and here, putting together the best of our two parts, and that is Robert Wood Johnson Medical School and Rutgers. And the immediate synergy that will occur there will be faster than anyplace else, because they start at greater strength and much, much greater size. And so this does not need a great deal. All you have to do is unchain the giants here and things will start to happen. But you have to put them under local leadership and allow the faculty to work together, allow the students to get not only--

For instance, at the University of Pennsylvania, many of the undergraduates, who are on the same faculty (*sic*) as the medical school, do their research in medical school laboratories. And that's what I would see in each of these campuses, where not only the undergraduate, but graduate students are interacting and building the excitement.

Finally, in the south -- in the south would require by far the greatest effort, because it's the smallest and the weakest. And here we'll have to build new buildings to give it real graduate programs, to build the

strength of the undergraduate programs. Everything needs to be built, because it's very weak. And the School of Osteopathic Medicine produces -- it does -- has some very good function. It produces primary care physicians who tend to stay in the state, and that's a worthwhile thing. On the other hand, we've had the third- and fourth-year medical students from Robert Wood Johnson -- from the north, from the center -- doing their third and fourth years at Cooper Hospital, in New Brunswick. And one could build an entire allopathic hospital in Camden, and this would be terrific.

So you put together, then, Rutgers plus a real medical school -- by real, I mean an allopathic medical school -- along with the osteopathic medical school, and the other parts of Rutgers that are there -- in the health-related profession schools that are there. So you would give some real beef to the south, which really needs to grow, because there's a large population that is underserved and which would benefit enormously. And that benefit would translate into economic benefit for the state in Camden and the surrounding region, which is desperately in need of help -- economic help.

And so how to do this? This Commission concluded that the best way to do this would be to follow some of the great systems, and that is have a system -- a university system which would be headed by a chancellor, who could oversee the strategy of the whole system, but would have three rather autonomous universities -- each with its own mission, each with its own specific drive and people. And so you would have the strong urban university in Newark, with focusing on urban problems and everything to do with cities. You'd have the more, I would say at this point -- very scientifically oriented group in the center of the state, in the

university in the state, with its own president. And finally in the south, you'd have a university there that also focuses on the unique needs and strengths.

There are strengths in the south. For instance, they know quite a lot about children, the care of children. They know care of the aged. They do some biological computations. So each place has some strengths that the overall autonomous university can nucleate around, and augment and grow from there.

And so the idea is three relatively autonomous universities. The presidents, in each instance, appointed by the chancellor of the system -- who would be a person of national stature with great experience, and who would report to a board of regents, composed of the most distinguished members of the state -- including people in higher academia, as well as businesses and professions -- to represent the state and to try to accomplish in this state what the University of California system has accomplished in California, or the University of Texas, in Texas, etc.

I think it's doable. It's a lot of work. It's going to take some initial investment. And the following Committee -- or Commission I worked on, came up with some numbers which were presented and discussed, but it never got anywhere. But the point is, the benefits from these changes are multiples of the investment that would be required to do it, if you have the right leadership and that leadership has the political backing to be able to get it done.

Thank you very much.

SENATOR LESNIAK: Thank you, Dr. Vagelos.

First of all, it's obvious that you have a wealth of knowledge and insight on this subject, and I'm sure you will remain a resource for this Task Force as the deliberations go on. And also, I've waded through your report, and you bring life and much more meaning through the testimony. It just seems so exciting. Your excitement is obvious, and it's based on your love for the state and all the work that you've done. You've certainly got me excited, through your testimony today, that we can do something good.

I want to thank you.

Questions from the Committee?

SENATOR MARTIN: Thank you.

As the Chair has mentioned, I have waded through your previous report. I guess it's -- I mean, that's what the basis of your testimony is today. I was excited when you first gave it, and I'm still interested, at least in the general parts of it.

Just a couple of general questions; and I think I know the answers, but just would help me in terms of direction. The model that you're proposing sounds something like the California system with a Berkeley, a UCLA, and maybe a Davis or Irvine, sort of, separation. We know that UCLA and Berkeley function relatively independently. For those of us on the East Coast, we mostly know them through their sports programs, but we do know that they are world-renowned academic institutions, and they do function sort of independently. Is it fairly correct in saying that that's what you'd like to see -- a UCLA in Newark, a Berkeley in New Brunswick, and another UCLA in Camden, or something like that?

DR. VAGELOS: Well, think of UCSD. I mean, the campuses are really across the state, from the top to the bottom. You have the Berkeley--

SENATOR MARTIN: Another San Diego and Irvine and--

DR. VAGELOS: --and San Diego and Irvine, and each of these places that you've mentioned is independently better than anything that we have. So if you take UCSF, which is the medical campus across from Berkeley -- I mean, these are great institutions. They have an enormous history of getting Nobel prizes. The amount of money they bring in to the University and to the state is a multiple of what is brought in by all of our universities combined. And they produce great students who then come out and start businesses. If you go into South San Francisco, where I have a business, personally, it's like going into a mushroom factory with all the biotech companies lined up. There are literally 50 or a hundred of them. And these are companies that are right down the street from Genentech. And now Genentech and Amgen are building additional facilities to house 10,000 additional workers -- these two companies. And, yes -- so that is exactly the vision that I would love to have in New Jersey, to have that kind of economic impact by the universities.

SENATOR MARTIN: There's an issue about geographical proximity, and you just, in your comment you just made -- you did note that the Berkeley part of the University of California has a medical school in San Francisco. I know there's some separations, I think, with some of the law schools, and so forth. My question is, how important is it that South Jersey, or Central Jersey, or North Jersey for that matter -- what is-- How important is it that there's virtually complete or separate geographic

diversity? With the new world of the Internet and other things, there's -- people are talking about how you don't have to always be next door to one another, but how-- Do you think that that's critical, this vision that you propose?

DR. VAGELOS: What I think is critical is local leadership -- local leadership. We need to have a president on each site that has a vision and a mission that is unique for that site. The interactions that occur in science, you can be anywhere in the world and interact with somebody else, but when you're serious, you've got to sit down next to them and you have to have your students go from your laboratory to their laboratory, back and forth. So it's a matter of personal interactions to get research done. Information can be traded, of course, across million of miles. But to get research done, to teach, you really have to look the student in the eye and say, "Look, you're screwed up what you're doing. This is the way you do it." So you've got to have them together.

The interactions that are -- there are interactions today in New Brunswick-Piscataway, between Robert Wood Johnson and Rutgers. There are interactions in Newark among the group, but they can be increased by tenfold by decreasing the hassle -- the administrative hassle when you want to have a joint research proposal for the National Institutes of Health.

For instance, it's very confusing to the NIH when there is a proposal from Robert Wood Johnson and Rutgers. And they don't quite know how to handle that. You'd like to have, also, joint training grants.

SENATOR MARTIN: But you're suggesting that it works to their disadvantage because it isn't one university.

DR. VAGELOS: Correct.

SENATOR MARTIN: So they may have some questions raised about how these two will be able to put the proposal together if -- but it would be better if it came from one institution, since they know it was all directed from the top to the bottom.

DR. VAGELOS: Yes, yes. In fact, the -- even the investigators in the two different places are not sure quite how to do it.

SENATOR MARTIN: My last question, it's similar. I happen to agree with you. I think geographical proximity is important, especially, as you said, if part of the model would be to have undergraduates and graduate students being able to share resources. You can't have the campus 20 miles away. It's hard enough in New Brunswick, I think, to use the university and get through the local transportation system, without making it more difficult. But my related question has to do with applied science versus hard science. And it strikes me that it would be much sounder if we could have the two, sort of sides together and really functioning properly.

I know one example is, my youngest daughter is in her third year of a clinical psychology program at Rutgers on the Piscataway Campus. It's called GSAPP, the Graduate School of Applied and Professional Psychology. They are literally next door to Robert Wood Johnson. They eat lunch there, and the students -- at least some of the students know one another. It seems like it's the same campus, but actually there are two universities. It's my sense that it would really be helpful to both sides -- the hard sciences to be able to have more, sort of, continuity and maybe direction from the applied side. I mean, the applied side really-- One of the things I've heard -- I'm not a scientist -- but so much of the new advances in medicine are largely done by the hard sciences, in mathematics and physics,

because they're able to put together stuff about genetics and things like that, that applied science never -- maybe can get, but these guys can come up with some stuff that's beyond imagination. What are your thoughts about that?

DR. VAGELOS: That is a great point. That is a great point. It's called translational medicine today, and it's translational type of research. And that is, how do you get the work that is being done in the laboratories of the engineers, the physicists, the chemists into applications, medicine, and clinical work. And the best way is to have them together. And that is the biggest reason, actually, to put together the strength of Rutgers University with the biomedical people in Robert Wood Johnson Medical School -- in order that the people who are looking at Alzheimer's disease, for instance, or cancer can call on the mathematicians who are doing this biological computation, call on the engineers, the physicists to get involved; because that's where all the action is going to be in the future. So it's a translational type of research, that you want to have the people who are doing the really basic research very close to the people who are looking for applications, and talking with each other as they're developing.

You see this best in people who are doing devices, medical devices, where they're looking for new materials to put into people and -- nanotechnology for making tiny little pumps or tiny little meters that will measure blood sugar or cholesterol, or these other things that you'd like to keep track of -- and put them in the body because they're so tiny. That takes engineers, material scientists, and biomedical people together. Good point.

SENATOR MARTIN: Thank you.

SENATOR LESNIAK: Thank you, Senator.
Assemblywoman.

Any Assemblyperson?

ASSEMBLYWOMAN KARROW: Thank you very much,
Chairman.

Dr. Vagelos, I'm a big fan of yours. We met-- First of all, I represent Merck's worldwide headquarters in Readington Township, and we met in a farm field when Merck helped dedicate 500 acres to Somerset and Hunterdon County -- the old Merck research farm. So we met in a farm field when you provided the sushi to a bunch of politicians.

I have a few policy questions for you. Your enthusiasm for this is absolutely infectious, and I appreciate it. Your report, in 2002, glows about NJIT and Rutgers for the most part. So as a policy decision, why shouldn't we just focus on fixing UMDNJ?

DR. VAGELOS: Because UMDNJ is not fixable as it is. It's stretched out in three cities. It has -- it's governed centrally. And the end result of that is tremendous differences in quality in the three places. And without local governance, this is not going to change.

Now, you said that I glowed about NJIT and Rutgers--

ASSEMBLYWOMAN KARROW: In comparison to UMDNJ.

DR. VAGELOS: Okay.

ASSEMBLYWOMAN KARROW: I'll put it -- I'll couch that--

DR. VAGELOS: Yes.

ASSEMBLYWOMAN KARROW: But you were very complimentary to both of them in your report.

DR. VAGELOS: Yes. They both do something very well, but neither of them is as good as they could be. The whole idea here is that we have some good things. We have good things in UMDNJ also, but they could be improved enormously by getting together with their counterparts on their unique sites.

ASSEMBLYWOMAN KARROW: There's a lot of criticism in your report about the level of the staff at UMDNJ.

DR. VAGELOS: Yes.

ASSEMBLYWOMAN KARROW: The number of faculty who are distinguished in different fields, compared to other universities -- how would restructuring fix that? What are we talking about doing to the faculty?

DR. VAGELOS: It doesn't fix it initially. What it does is start the ball rolling by bringing in strong leadership in each place that says, "Let's do something we've never done before in UMDNJ. Let's focus on excellence." I will tell you, if you read our report, it comes out at you repeatedly. We've got great size; we've got lots of labs; we've got lots of people. But we lack, enormously, excellence. And that's what has to be started by leadership on each side, by people who are able to recruit. Because of additional space -- we'll have to build in Newark and Camden, and recruit the kinds of people who will bring the excitement, the teaching, the research, the service that will reach those levels. Because you cannot take the people who are modest in quality and hope that they will be elected to the National Academy of Sciences.

ASSEMBLYWOMAN KARROW: And how do we protect the other two, current, stand-alone universities? How do we protect NJIT and

Rutgers from potentially being harmed by a merger? Is it possible to do it incrementally?

DR. VAGELOS: I don't think so. I don't think so. I think the best way to do it would be to give the signal to the group in Newark that they're going to be one university and to bring together -- to bring a leader who then has a strategy for a strong, urban university, and says "These --" and looks at the current strengths in the three universities -- NJIT, UMDNJ, and Rutgers, Newark -- and says "These are our current strengths. Let's complement them, help them become stronger, and let's bring in additional strengths, which will be -- fit the needs of the urban university." So it's incremental insofar as you're going to have to make changes over the-- It's a 10-year plan.

ASSEMBLYWOMAN KARROW: And I saw that. And before we get into that part of the discussion-- So your representation is that it can't be fixed, UMDNJ. It needs to be almost scrapped. We're talking layoffs, we're talking faculty changes?

DR. VAGELOS: No.

ASSEMBLYWOMAN KARROW: If we need to bring in better faculty, of a higher level or more distinguished, how -- would there be more faculty, instead of getting rid of dead wood, or cleaning up hiring practices?

SENATOR LESNIAK: If I may? I thought Dr. Vagelos eloquently addressed that issue that because of -- whether UMDNJ have to be fixed or not, that there's a better way. There's a way to bring us from the middle of the pack, or below the middle of the pack in some instances, to excellence, which this state has a right to be because of who we are, and what we stand for, and what resources we have. And the only way to

achieve that excellence is to unite these sciences, because that's what attracts the research dollars, that's what attracts the faculty, that's what attracts the leadership. And that's not going to get done with free-standing medical schools without the basic research schools together. So this is not a zero-sum game. This is a game, hopefully, that we're playing that's going to exponentially improve the quality of education, and research, and economic development in the state.

Could you have said that any better? (laughter)

DR. VAGELOS: Not at all.

ASSEMBLYWOMAN KARROW: Mr. Chairman, I completely agree with that. In fact, on appropriations I made comment of that, when we looked at the stem cell research bill -- that it was going to trifurcate the very precious tax dollars -- the three different locations -- rather than consolidating them, which actually came right out of some testimony from this report, as well as other high-level doctors, medical schools, or whatever in the country. So, if we look at the 10-year plan, their projection is that this is going to cost about 100 million a year for 10 years at least, just for capital improvements, for capital infrastructure.

DR. VAGELOS: I don't remember how it splits. It's 1.3 billion over 10 to 11 years. And that's split between capital, both-- The restructuring part is relatively small. It's the additional capital for building additional buildings, and then the expense money that has to be added. And therefore, when you asked about layoffs -- I think with the additional building there are enough new people being brought in that the people who are not really cutting it, not able to do the research, not able to be the best teachers, will go out by attrition. So I don't see vast -- I don't see, really,

cutbacks. I see bringing in exciting people and adding to places. Because we have great growth potential both in Newark and Camden.

ASSEMBLYWOMAN KARROW: Okay. Well, I'll leave it at that for now.

Thank you.

SENATOR LESNIAK: Thank you, Assemblywoman.

Senator Weinberg.

SENATOR WEINBERG: Dr. Vagelos, she kind of just answered my question, because everybody remembered the famous, "Well, we-can't-do-this report, because it's going to cost \$1 billion." So I was going to ask you to address how that would be broken down. The only new facilities you actually talked about in your testimony was down in Camden.

DR. VAGELOS: Oh, no. There would be many initial facilities in Newark, a small amount required in the center of the state. But the major buildings would be in Newark and in Camden.

SENATOR WEINBERG: In Newark and in Camden?

DR. VAGELOS: Yes.

SENATOR WEINBERG: And that's where the \$1 billion price tag came from?

DR. VAGELOS: The 1.3 billion?

SENATOR WEINBERG: Yes.

DR. VAGELOS: It's-- I'm afraid I do not have that at my fingertips. It's split between the three places. I think the highest needs are definitely Newark and Camden. The least needs, the smallest needs, are in the center.

SENATOR WEINBERG: But most of it was capital expense?

DR. VAGELOS: No.

SENATOR WEINBERG: No?

DR. VAGELOS: It's both.

SENATOR WEINBERG: Okay.

DR. VAGELOS: It's both.

SENATOR WEINBERG: I'd be interested in seeing--

DR. VAGELOS: Yes, we have that. That's our second report.

And since they want-- You asked for me to focus on this, I focused on our first report and not the split-out. That's all published. Sorry I don't have the figure, the numbers.

SENATOR LESNIAK: Thank you, Dr. Vagelos.

Co-Chair?

ASSEMBLYMAN CARABALLO: Assemblywoman Lampitt.

ASSEMBLYWOMAN LAMPITT: I have just two quick questions. You spoke about separation. But would there be anything besides a chancellor that you would keep centralized? Because you spoke about the NIH grants. And if we do decentralize in a way, and create these three campuses, then even still, the NIH grants -- they could be going after the same grant process.

So was there anything in your recommendations about keeping anything centralized, besides the chancellor?

DR. VAGELOS: No. I see the chancellor's office as one policy strategy, interacting with the State government for financing. All the outside things, the-- We would like to see the great strengths of administration in the offices of the three presidents. And so they would be the people who would help the faculty focus on different areas of strength,

where they would go for NIH grants for instance, and cooperate, and have these cooperative -- both research and training grants.

ASSEMBLYWOMAN LAMPITT: So nothing would remain centralized then?

DR. VAGELOS: No.

ASSEMBLYWOMAN LAMPITT: My second question is--

SENATOR LESNIAK: Can I answer that question, if I may, in terms of the issue of competing against each other?

The concept would be that each school would have a different mission. And by that differently defined mission, the Newark school would be, perhaps, the delivery of medical services to focus more on the community. The New Brunswick may be for more basic research. So they really wouldn't be competing for the same dollars.

ASSEMBLYWOMAN LAMPITT: Okay.

My second question speaks to the renaming -- the UNJ -- because we haven't spoken about that at all. What was your--

SENATOR LESNIAK: Can we take that off the tape?
(laughter)

ASSEMBLYWOMAN LAMPITT: I don't know. Convince me. Can you speak to that, for a minute, about your theory about why to rename the--

DR. VAGELOS: No, no. My own reaction was to let each of the campuses come up with their own names. I have no bias toward what the names could be. So either the generic University of New Jersey -- like University of California -- as a generic name. And then people can have whatever they like. Rutgers, certainly, is going to be a name that will

remain. But I would see it, principally, in the center. That is, really, a local decision.

SENATOR LESNIAK: Very good political answer. (laughter)

Thank you.

Any other questions?

ASSEMBLYMAN CARABALLO: Assemblywoman Beck.

SENATOR LESNIAK: Oh, I'm sorry.

ASSEMBLYWOMAN BECK: Thank you.

It was definitely a pleasure to listen to your testimony. Obviously we all, I think, have been following this issue for a couple of years now. And it certainly does take a lot of thoughtful consideration.

I do have some concern about the mission of the University of Medicine and Dentistry, and that, being folded into the mission of Rutgers, in my very basic view, it just seems that it could be diluted, or that we risk it being diluted. And I understand that there are potential for some synergies. But I think there are examples, nationally, where you have colleges and universities that pulled the medical school out and allowed it to be a more independent institution, and that served it better, so it could be singly focused on the mission of medicine.

And I just wonder-- I'm sure you must have done research and put some thought into that. I'm wondering if you might address that.

DR. VAGELOS: Yes. I will tell you, the strongest medical schools -- I think nine out of 10 -- are part of strong universities. And the interactions-- I have worked in three universities: Columbia University, University of Pennsylvania, and Washington University. And in every instance, the things that are important -- and have been important to me --

are the interaction between faculty and students. And to see the undergraduate students working in the laboratories at the medical school, or the veterinary school, or the dental school-- That's what you see on these campuses. That's really what turns on students. We have very little of that.

ASSEMBLYWOMAN BECK: And just one other, which is: On a couple of occasions, you referenced the Camden facilities and the fact that, at present, these are the weakest and least attended campuses of the existing higher education structure. I'm just wondering if maybe there was any thought given to reducing it from three to two. I mean, maybe taking the resources-- And I only throw this out there for discussion. Because, of course, I think this is a sort of brainstorming session -- but maybe taking those resources and investing them elsewhere. Or was there enough in the Camden facility that you feel additional investment brings it along? I'm just sort of curious how you evaluated that.

DR. VAGELOS: That's a terrific question. Because very often when you're short of funds you say, "Let's really be sure we have two places of excellence, rather than three that are not quite making it. And if there is one that's really weak, let's delete it." And that is certainly an option. But I don't think it's a real option for a couple of reasons.

One, there are some real nuggets of strength in Camden. Number two, there's a huge population growth in that region. So that's an area that is underserved, from the point of view of a research university and of the State. And, therefore, I think, from-- And I'm the least political person that I have ever met. (laughter) But I think, politically, it would be an impossible thing to do -- and that is to leave them destitute, from the

point of view of the public research university, while the two other regions grow.

ASSEMBLYWOMAN BECK: Thank you.

ASSEMBLYMAN CARABALLO: Assemblyman (*sic*) Asselta.

SENATOR LESNIAK: Senator.

ASSEMBLYMAN CARABALLO: Senator Asselta.

SENATOR ASSELTA: I could be both. I could actually be both.

ASSEMBLYMAN CARABALLO: You were my colleague, yes.

SENATOR ASSELTA: Thank you, Mr. Chair.

I could not help but jump in here and protect a part of the state that is probably, right now, as important, economically, to the well being of this state than any other section of the state.

And you, in your remarks, over and over again divided the state into thirds, correct? North, central, south.

And my Assemblywoman across the aisle there -- not across the aisle politically, but from a different part of this state -- I don't think realizes the potential that southern New Jersey -- as I call, the lower five counties -- have in this whole plan. And you have articulated that in your report and in your testimony today.

And if you had to invest first, in this expansion process, this consolidation/expansion process, where would you go first?

DR. VAGELOS: Newark.

SENATOR ASSELTA: Second?

DR. VAGELOS: Camden.

SENATOR ASSELTA: Third?

DR. VAGELOS: Center.

SENATOR ASSELTA: Okay. Thank you. I appreciate that.

SENATOR LESNIAK: Thank you, Senator.

Thank you, Dr. Vagelos.

ASSEMBLYMAN CARABALLO: Thank you, Dr. Vagelos.

ASSEMBLYWOMAN KARROW: Can I ask a couple more questions, just to follow up?

ASSEMBLYMAN CARABALLO: Assemblywoman Karrow.

SENATOR LESNIAK: Seven-thirty kick off. (laughter)

ASSEMBLYWOMAN KARROW: Sorry.

I thought this wasn't about UMDNJ getting a football team.
(laughter)

Just a quick follow up. In your report, you also talk about the board of trustees and how they would be appointed. And you just mentioned that you're the least political person you know. Would your-- In the best case scenario, who would appoint the trustees? The way the Board of Governors and the Trustees at Rutgers -- where there's some autonomy, there's some self-appointment-- Would it be politically, would it be through the Governor? How would you see that? In your best case scenario, what would be the best way trustees would be appointed?

DR. VAGELOS: Well, what you would like is to be able to attract the strongest, most distinguished members of the state who know something about higher education. And if that could be done by the Governor, and done on a five-year term, or some long term so that it's not a politically turned over thing, that might be the way to do it.

I really have not focused on that enough. I would look at all the best -- and we did, we looked at all the best systems. And there's tremendous variety of how they're selected. Some of them are elected; some are appointed by the Governor; some are done in, sort of, hybrids. And so--

ASSEMBLYWOMAN KARROW: And you don't have an opinion on that?

DR. VAGELOS: I'm sorry?

ASSEMBLYWOMAN KARROW: You personally don't have an opinion.

DR. VAGELOS: I do.

ASSEMBLYWOMAN KARROW: Would you share it?

DR. VAGELOS: Sure. I think this should be a Governor appointment, but should be a long time, so that it goes beyond the Governor's tenure, and so that people would -- and be five years. And they should overlap so that there would be continuity; and that the quality of this group would become so evident and so distinguished that people would be -- would love to be on that board, and they would be beyond political muscle.

ASSEMBLYWOMAN KARROW: Thank you.

That was it.

ASSEMBLYMAN CARABALLO: Thank you, Dr. Vagelos. We really appreciate your testimony and your hard work in this area.

Dick McCormick, President of Rutgers, who I think has a little bit of an engagement tonight, a small undertaking. (laughter)

Welcome, Doctor.

R I C H A R D L. M c C O R M I C K, Ph.D.: Thank you very much.

Indeed, we have an engagement tonight.

As I observed this morning at an earlier hearing, my goal is to have a university that our football team can be proud of.

Senator Lesniak, Assemblyman Caraballo, and other distinguished members of this panel, I thank you for the opportunity to speak this afternoon, and for taking on the challenging assignment that your Task Force has assumed.

Now, that challenge is to examine New Jersey's research universities, to consider some far-reaching institutional changes, and to set the universities on a path toward greater academic excellence and more outstanding service to the state and the nation. Let me begin by acknowledging that your work is vitally needed.

I also want to recognize and thank Dr. Roy Vagelos for his leadership, and express my high regard for him. Three years ago, New Jersey and its research universities considered with great care and respect the bold ideas Dr. Vagelos set forth for restructuring higher education and research in our state. As you know, this grand, ambitious effort failed. But the obstacles we encountered at that time were not intrinsic to the academic vision Dr. Vagelos advanced. The difficulties lay, rather, in some real issues, complexities, and problems that will have to be addressed if higher education and research in New Jersey are to attain the status we rightly seek for them. I will return to these issues in a few minutes.

For good reasons, the discussion focused then, and we are focused now, on the state's needs in health sciences education and research,

the subject to which I will devote a good deal of my remarks. But similar needs are felt in every area of higher education: in the arts and sciences, in engineering, in law, in business, and the rest. Whatever changes we make must be designed to advance excellence in every academic field and for all of our students.

That said, the basic goals for restructuring research universities in New Jersey are just as sound now as they were before. First, we need health sciences education that ranks among the best in the nation for training physicians, dentists, nurses, pharmacists, public health professionals, and all the varieties of men and women upon whom outstanding health care depends.

Second, we need more biomedical research, both basic and translational, in all the most promising fields, from genetics, to stem cells, to cancer. That means truly outstanding research -- research that will mark New Jersey in the years ahead, just as it was known in former decades, as a place where knowledge is created that saves lives and contributes to the prosperity of our economy and the well-being of our communities.

And third, we need a research university, or universities, among the best and most respected in the world -- a university that attracts excellent students and faculty, creates new knowledge of enduring significance to humankind, and consequently merits greatly increased financial support from governments, foundations, and the private sector.

Rutgers shares these goals for New Jersey and wants to do its part to help achieve them. But right now, New Jersey is a huge under-achiever in regard to these objectives. To be sure, there are elements of great strength and excellence. Many of them, I am proud to say, are located

at Rutgers, or jointly at Rutgers and UMDNJ -- at the Center for Advanced Biotechnology and Medicine, at the Protein Data Bank, and at the Cancer Institute of New Jersey, to name just three examples. But the whole is distinctly less than the sum of the parts in health sciences education and research, and many of the problems are structural.

Having an independent health sciences university that is not part of a comprehensive research university is unusual and limiting. Opportunities for interinstitutional collaboration currently exist, and they are being increased without structural change, as UMDNJ President Bruce Vladeck and I have recently pledged in a letter addressed to Dr. Richard C. Leone. But those collaborative opportunities are less numerous and harder to seize than they should be. Inevitably, cooperation across the universities is constrained by administrative disparities and even by institutional possessiveness.

In Federal research support, New Jersey is not receiving nearly its share of the available dollars, especially in light of our favorable geographic location, the knowledge-based nature of our State's economy, and the highly educated quality of our workforce. This loss of support hurts our economy, just as it hurts our research productivity and our educational programs. And this will only be exacerbated by national and global competition; by limited growth in Federal support; and by the need for large-scale, multidisciplinary approaches to the solution of increasingly complex problems.

I know from my 10 years, altogether, as Provost of the University of North Carolina at Chapel Hill and President of the University of Washington in Seattle, what extraordinary advantages in education,

research, and economic development can be gained from having medicine, dentistry, and public health all included within the same university as arts and sciences, law, business, engineering, and social work. In such a setting, students have opportunities that are now denied them in New Jersey. Path-breaking research is undertaken across disciplinary lines, and opportunities abound that we simply do not have in this state. The successes of those universities are now seen in the great economic growth engine of the Research Triangle Park, and the biotechnology and computer science industries in and around Seattle. And we do not have this kind of growth, investment, and development in New Jersey.

There are many ways and multiple models through which New Jersey could achieve the goals we seek. There is no right answer. Indeed, there are several answers. California, Michigan, and Texas all have achieved the goals we are striving to attain. But they did not copy each other, and we cannot copy them. We need a solution that fits the history and needs of New Jersey. The only thing we can be sure of is that the current organizational arrangements are distinctly limiting and must be changed.

I am not here today to tell you what organizational model you should adopt for the research universities of our state. Instead, I want to use the remainder of my time to set forth some principles that I believe ought to guide this discussion. It is a very important discussion, and New Jersey needs to get it right.

First is the principle of the process itself. And here I commend your Task Force. It should be much more consultative than it was in 2003, when a model was decreed and then slated for implementation. Not surprisingly, it failed. There are lots of stakeholders here, and multiple

centers of influence and power. If anything as complicated a merger of universities is to be undertaken, there must be adequate discussion and planning.

Second, the goals of excellence in teaching and research must be paramount. This is easy to say, but hard to do. It would be difficult to argue that considerations of quality have always been uppermost in New Jersey's decisions about higher education. But the concern for quality must be paramount for the future. The ultimate goal of any university restructuring must be to achieve academic excellence, and to create outstanding education and research in health sciences and every other field for New Jersey.

As noted before, there is no single organizational model we should be copying. But there are national benchmarks for educational excellence, just as there are for health care. New Jersey's institutions should be held to the highest standards of accountability to protect the public trust and to ensure that teaching and research measure up to the very best. We should not just settle for solutions upon which a consensus can be obtained. We must reach for solutions that will make our successors and our future citizens truly proud of the state's research universities and the work they do.

Now, it would be wonderful if considerations of academic excellence and quality were all that mattered. But that's not the world we live in. Governance, structure, and funding also count. We would be naïve to ignore the role that these factors will play in the recommendations you make.

For 50 years -- and it is just 50 -- since it became the State University of New Jersey, in 1956, Rutgers has maintained its partnership and a covenant with the State as the state's comprehensive research university. Rutgers is led by a Board of Governors of 11 members, six of whom are appointed by the Governor of New Jersey and confirmed by the Senate, and five of whom are elected by Rutgers' Board of Trustees -- a body that dates back to 1766. This unique governance structure has safeguarded the mutual obligations of the State and the university, based first and foremost on protection of the academic missions and on freedom from partisanship. A paramount emphasis on academic excellence means having governance structures that reflect the educational missions of a university. Institutional governance makes a real difference to quality; so does structure.

While it is attractive to contemplate structural changes in the research universities of New Jersey, and while I have already said that in my view such changes should be undertaken, it is important to think carefully about what exactly they should be. Separating Rutgers into two or three different universities will damage the relationships between and among such disciplines as law and business, and the rest of the institution. There are many shared academic programs in fields such as nursing and social work, whose future could be jeopardized. The accreditation of professional programs -- which is so essential to the value of the degrees the students receive -- must be protected. None of this is to say that a particular structural change cannot be made, only that any such change requires careful thought and analysis.

The same is true of a large number of corollary issues. We need to decide who will hold the debt of the existing universities and how it would be reallocated when they are reorganized. Who owns the endowments, and how would they be reallocated? Who owns the land, and how will it be allocated? There are union contracts to be respected, computer systems to be aligned, and libraries to be integrated. Perhaps most challenging of all, there is the question of how to maintain and enhance the medical care provided by University Hospital in Newark without putting the university system at risk.

The final consideration to which I call your attention is the need for adequate and stable funding. That is no small matter in a state that has struggled to support higher education and whose colleges and universities are currently suffering significant budgetary reductions. Whatever structural changes are made should be accompanied by sufficient investments to ensure the quality of the institutions and their programs. In actuality, that means three types of funding.

First are the investments to actually reorganize the universities, to mesh the computer, telephone, accounting systems, and the like. These are real and significant costs.

Second is the annual operating support that is adequate to the performance of the universities' missions. Now, if the goal of restructuring is simply to realign the pieces on the chessboard, then these two types of funding are probably enough. But we will not have achieved our potential or brought rapid, tangible benefits to the citizens of New Jersey. If we are to accomplish that, and become the equal of the Michigans, and Californias, and North Carolinas, then we have to invest in the programs that will make

us among the best. We need to choose the areas in which New Jersey's universities can truly excel -- biotechnology, pharmaceutical chemistry and engineering, nanotechnology, new materials and devices, nutrition, microbiology and infectious disease, homeland security, and so on -- and support them at a competitive level. We can compete in these areas and achieve significant economic benefits. If we do not make such investments, a restructured university would be just a hollow shell.

Finally, as I have observed already, the institutions must be held strictly accountable for the expenditure of all the resources they have. I have prepared and distributed to the members of your Task Force a separate statement on the internal control measures that we have adopted at Rutgers to avoid abuses and enhance accountability. We will continue to scrutinize and improve our policies and procedures in these areas.

All of these are challenging issues for New Jersey, but we must do everything we can to meet them. The current arrangements in our State have brought forth too many missed opportunities and inadequate outcomes in education, research, health care, and economic development. At Rutgers, we do not claim to know how best to reorganize the research universities, but we believe that some key principles should guide the process. They include paramount attention to the quality of education and research, institutional governance that is appropriate to the maintenance of academic integrity, careful decision-making about any structural changes, adequate and stable funding, and accountability of the universities to the people of New Jersey.

Rutgers stands ready to engage with the Governor, the Legislature, the other universities, and all the stakeholders in considering

these huge issues and inspiring opportunities. Much is at risk for the people of New Jersey, and much is to be gained by getting it right.

ASSEMBLYMAN CARABALLO: Any questions?

Senator Martin.

SENATOR MARTIN: Thank you.

And I hope you--

I guess I speak for the whole state in hoping that this is a great victory day for the R.U. football team.

DR. McCORMICK: Thank you, Senator.

SENATOR MARTIN: Dr. Vagelos talked about -- with his structure of governance -- the creation of something like a chancellor. And it seems to me that by looking at your organizational structure -- which we were provided -- it already lays out something like that. I mean, Rutgers operates, now, with three distinctive campuses that are semi-independent, if not -- maybe not as independent as they would be. Certainly the missions would get more complex if the universities were integrated.

But my question is: Do you think that your general structure, as under your organizational structure now, could accommodate some of the proposals in which there would be this integration on the -- at the three -- north, central, south -- divisions of Rutgers with the other universities?

DR. McCORMICK: Senator, I think it could. As you can tell from my remarks, I feel very strongly and positively about the existing Rutgers governance structure. It has served the University, and I believe the state, well for 50 years.

Integrating into the University other elements, and accepting those structural changes, would require a great deal of thought. And that's

why I didn't come before you today with a structural proposal. Because I don't know what the answer is any better than anyone else does. It would take a lot of thought.

But whatever the outcome of this deliberation -- and, again, I commend you for commencing it -- a governance structure like Rutgers -- not necessarily identical to -- but a governance structure like Rutgers currently has, has the advantage of advancing accountability to the State, with six of the 11 members of our Board of Governors appointed by the Governor of the State, and five appointed by our historic Board of Trustees. It's a model that has balanced the autonomy and integrity that an institution requires with allegiance to the State of New Jersey.

SENATOR MARTIN: I've spent some time, thanks to Rutgers, teaching at the law schools in Newark and Camden. So I'm somewhat familiar with the way they operate separately from New Brunswick. It's my perception that there may be -- this Task Force may be inclined to make some recommendations that would be beyond simply the issue of the health sciences. For example, I think there's some concerns about the business school. And I know nursing is within that field, but there--

I guess my question is this: Would Rutgers be prepared to look at, perhaps, some concerns that may not be specifically the focus of this, but yet become important enough, in considering balance and viability of independent campuses, that you would be willing to look at, perhaps, some internal transfer of what exists at Rutgers, presently?

DR. McCORMICK: Sure.

Yes. We come to this conversation openly and, frankly, somewhat humbly, not knowing the answer. If I thought I did, I guess I would have told you.

There are all kinds of complexities. You mentioned business and nursing. The Rutgers School of Business, which is administered -- centered in Newark, actually serves business education in New Brunswick, too. Nursing education, same thing; social work education, same thing -- except it's centered in New Brunswick. Not meaning to belabor these kinds of details today -- but they would have to be addressed directly.

But, yes, we come to the conversation appreciative for the opportunity to pull up a chair at the table and ready to talk about anything.

SENATOR MARTIN: Thank you.

ASSEMBLYMAN CARABALLO: Assemblywoman Karrow.

ASSEMBLYWOMAN KARROW: Dr. McCormick, thanks for coming.

To the best of your knowledge, with all of your background working around the country at different universities, has anybody else ever done this in any other state -- where they've looked at merging various universities together, and has done so successfully?

DR. McCORMICK: I'm not aware of any plan as complicated as the one that we deliberated on in 2003. That doesn't mean it can't be done. And I hope the spirit of my remarks suggests everything should be on the table.

Certainly, the recent history of some attempted mergers in the health sciences should give us pause, but perhaps, also, some reasons for optimism. Hospital and medical school consolidations in both New York

and the Bay Area of California have tanked in recent years because of the inability to meld the separate cultures of distinct institutions. And that's the kind of fact that I think should be considered.

While I'm not aware of anything as complicated as what Dr. Vagelos proposed in 2003, it doesn't mean we can't consider it. But as I indicated in my remarks, there are any number of very difficult issues: land, endowment, debt, union contracts, libraries, computer systems, governance structure, funding, and the list goes on. And the list is not meant to intimidate you or to say don't consider any of the above. But, just, let's get real about how complicated it is.

ASSEMBLYWOMAN KARROW: And I wanted to touch on some of those, because there's a lot of discussion about school funding reform, and school reform in general. And that gets complicated, too -- about regionalization and deregionalization.

So Rutgers, for instance-- You just mentioned something that I'd like to ask you to be a little bit more detailed on. Rutgers owns a lot of land that the board controls.

DR. McCORMICK: Correct.

ASSEMBLYWOMAN KARROW: By the way, I happen to agree with you. I think your structure of the Board of Governors, coming from both the Governor's appointment and from within the trustees, works really great at Rutgers.

DR. McCORMICK: Thank you.

ASSEMBLYWOMAN KARROW: How would you see that, if you had your druthers? And I'm asking you specifically, as the President of Rutgers. How would you see the protection, or what do you think would

happen to the assets? Also regarding the contracts of faculty, how would you see that working, regarding the merger of faculty and what happens to those contracts? Because I know there's a lot of concern about the contracts at Rutgers, in particular. And if you could also comment on the firewall. I understand your concerns about the hospital. How would you see the firewall being created?

DR. McCORMICK: Okay. You've asked a number of things. With respect to debts, endowment, and land, I think you'd need a very careful analysis of where they came from and where they're obligated to.

I mean, one of the -- just to go right to a challenging point -- one of the issues associated with the creation of a *University of Newark* is that -- of the Rutgers' endowment, very little of it is associated with our campus in Newark. But of the Rutgers' debt, a nontrivial amount of it is associated with the university. So that--

ASSEMBLYWOMAN KARROW: Does that mean, with the endowment, that if somebody donates or leaves an estate, and they leave it for a specific purpose, unless you go to court you can't break that?

DR. McCORMICK: Well, virtually all gifts to universities are associated with a specific purpose. I'd love to tell you that there are donors knocking on my door saying, "Mr. President, I want to give to whatever you think is most important." But everybody -- but 99 percent of the dollars given are highly designated. And, fortunately, they're designated for important things: support of students in the School of Nursing, or the endowment of a professorship in biology. So it's not a bad thing. But the endowments would have to be allocated so that the original wishes of the donors were completely respected.

Okay. So you next asked about union contracts.

ASSEMBLYWOMAN KARROW: Yes, about the contracts and how you would see that occurring.

DR. McCORMICK: Well, you would need people with better labor heads on their shoulders than me to answer that question. But, I mean, the simple answer is, most of the employees of the research universities are unionized. They have union contracts, and those contracts would, of course -- would have to be completely respected. There's no way around that, nor should there be a way around that.

As the contracts-- If you were merging faculty together, as their respective contracts came to a close and the new contract had to be negotiated, you would have to create, in effect, new bargaining units composed of employees across what had been, previously, distinct institutions. And they would become the bargaining units for the future.

ASSEMBLYMAN CARABALLO: Dr. McCormick, excuse me for a second.

DR. McCORMICK: Again, to repeat, you need people with more smarts on their head about labor than me to answer that question.

ASSEMBLYMAN CARABALLO: Doctor, I don't wish to interrupt this discussion, but I'm going to because of a couple of reasons.

DR. McCORMICK: Sure.

ASSEMBLYMAN CARABALLO: One of the things that you're doing right now is the kind of discussion that we are going to have to engage in. But we have a whole bunch of other decisions to make before we even get there. This is the kind of decision that needs to be ironed out if this group is going to recommend that anything happens. And I certainly

don't want to put you in the position right now of trying to give us the answers to something that you might have to go back later and say, "Well, I may have misspoken at this point," or something.

ASSEMBLYWOMAN KARROW: I just asked him his opinion.

ASSEMBLYMAN CARABALLO: Well, sometimes opinions--

ASSEMBLYWOMAN KARROW: It doesn't mean-- It's just his druthers on how he would see it.

ASSEMBLYMAN CARABALLO: No, I understand.

I also know that the good Doctor wants to get out of here. And I know that he will give us any time that we need. But I also want to respect the fact that he does want to be someplace else, where he has to organize something. And we're going to get another opportunity to speak to him. In fact, I have no doubt that we will get as many opportunities as we need to speak to him.

So if we have some real quick questions, maybe--

ASSEMBLYWOMAN KARROW: Well, I just would like to get the firewall question answered.

ASSEMBLYMAN CARABALLO: Okay.

DR. McCORMICK: Well, again, there are multiple possibilities. One is to have-- The University Hospital would remain a part of the university in Newark, or the universities in Newark. And some legislation would have to assure that it was separately funded; or it could be a separate institution, with its own board of trustees; or it could be part of one of the other outstanding hospital systems in New Jersey. There are multiple -- just as there are with arts, and sciences, and medicine.

ASSEMBLYWOMAN KARROW: You just don't want it under the big umbrella of a merger.

DR. McCORMICK: Well, I think that's not exactly it. What I said was that it has to be assured of being able to provide outstanding health care to the men and women of Newark and its environs. But the university or universities in its midst can't be put at risk by the inevitable inflation of those health-care costs.

ASSEMBLYWOMAN KARROW: Okay. Thank you.

ASSEMBLYMAN CARABALLO: Assemblywoman Beck.

ASSEMBLYWOMAN BECK: I promise I will be quick, through the Chair.

ASSEMBLYMAN CARABALLO: Okay.

ASSEMBLYWOMAN BECK: I know we're talking conceptually, as our Chairman has pointed out -- big picture. But I think your testimony raised some excellent points that we all need to give a lot of consideration to as we move forward.

I think, from the general public's perspective, they would love to see a better research institution in the State of New Jersey. And that's a positive. But I think the general public also would probably want to know that there might even be some cost savings, and some efficiencies in the administration, and some reduction in bureaucracy -- from the general public's perspective. I'm certain that they're going to look for that.

I also would wonder if people won't be nervous about taking an institution like Rutgers, that has a very strong reputation -- and I saw that you have enacted Sarbanes-Oxley -- with a troubled institution like UMDNJ, although I think Dr. Vladeck is doing very good things. I spent

some time with him this Summer, and I know he is working very hard to make sure that some of the problems they've had don't reoccur.

All that said, do you believe we can find efficiencies? And do you believe that a merger can ensure that the institutions are all protected from -- well, I guess from any problems that we've seen at UMDNJ?

DR. McCORMICK: Let me address efficiencies. I'm always for seeking additional efficiencies. We found some in the course of coping with the latest round of budget cuts. And I have, at work at Rutgers this year -- I have a very high-level committee on efficiencies and entrepreneurship that is seeking more. So even if there is no restructuring, I think that greater efficiencies can be obtained within the higher education community in New Jersey. Certainly, we're committed to that at Rutgers.

Any restructuring that was proposed and put on track for adoption ought to be evaluated with regard to whether it could produce additional efficiencies. My guess is, it probably could. But they would have to be-- And any savings that you might anticipate would have to be counterbalanced by the requisite investments that I summarized in my earlier testimony.

The second part of your question?

ASSEMBLYWOMAN BECK: I'm sorry.

Just making sure that we all have similar standards, as far as governance.

DR. McCORMICK: Sure. I think that the questions this committee asked me, which I answered in a separate written response, concerning the control mechanisms-- Rutgers is not unusual among the institutions. NJIT and UMDNJ also have put in place very, very

significant, hefty mechanisms for ensuring that expenditures are properly monitored and there's accountability to the people of New Jersey.

I applaud you holding us all -- whatever the structure may be -- to very high expectations for control of resources and accountability.

ASSEMBLYWOMAN KARROW: Just for the record, I haven't seen this document that Dr. McCormick's referred to twice, regarding internal controls.

ASSEMBLYWOMAN BECK: It's in here.

SENATOR LESNIAK: It was handed out to everybody.

SENATOR ASSELTA: It's right in here.

SENATOR MARTIN: It's on the back of--

ASSEMBLYWOMAN KARROW: It's in here today?

It's in his packet. Okay.

SENATOR LESNIAK: We didn't leave you out, Assemblywoman.

ASSEMBLYWOMAN KARROW: Thank you.

SENATOR LESNIAK: Any further questions?

ASSEMBLYWOMAN KARROW: I won't let you. (laughter)

SENATOR LESNIAK: Any further questions? (no response)

I just have one.

You outlined in your testimony, Dr. McCormick, three basic goals: need for health sciences education that ranks among the best in the nation, need more biomedical research, need a research university or universities among the best and most respected in the world. Are these goals achievable under the current structure of higher education in New Jersey?

The simple answer. (laughter)

DR. McCORMICK: Probably not.

SENATOR LESNIAK: Thank you.

ASSEMBLYMAN CARABALLO: Thank you very much, Dr. McCormick.

SENATOR LESNIAK: Go R.U.

ASSEMBLYMAN CARABALLO: Go R.U.

SENATOR LESNIAK: Dr. Vladeck.

B R U C E C. V L A D E C K, Ph.D.: Good afternoon, Chairmen, members of the Task Force.

I'm pleased to have the opportunity to appear before you today. I told my colleagues at UMDNJ, on a number of occasions over the last eight months, that what we really needed in reform of the institution was a football team. I've never felt that as acutely as this afternoon. (laughter) But timing is everything.

I've been asked to offer my thoughts on the current state of -- the current nature of the State's research institutions. But I also want to take a few minutes, at the request of your staff, to update you on the current status of UMDNJ, which has been, obviously, the focus of so much attention in a variety of venues, including the discussions leading up to the creation of this Task Force.

And let me begin with a, perhaps, audacious but documentable statement. One of the goals stated in your initial announcement about the creation of the Task Force was that you wished to explore options that will give the State a top-flight research institution. I think you already have one.

With regard to funding from the National Institutes of Health, for example, in the year 2005 -- which was the most recent one for which we have data -- out of more than 3,400 institutions around the country that received one or more grants from the NIH, we ranked 55th. Each of our allopathic medical schools is right about the middle, in just NIH funding of medical schools. When you put the two of them together, that puts us very near to the top quartile. That's still not good enough; it's still not where we want to be. But while I would point out -- that while Federal funding for research has been pretty much stagnant, our research funding has been growing. And, in fact, when I heard Dr. Vagelos' comments, it was clear to me that the data has changed pretty dramatically from 2002 to 2006.

For example, when you compared funding of the New Jersey medical school to the Robert Wood Johnson Medical School, and talked about how much stronger Robert Wood Johnson was, in Fiscal 2005, NIH funding to the New Jersey medical school was actually slightly higher than that for the Robert Wood Johnson Medical School. In total, for UMDNJ, all together between '04 and '05, NIH funding grew 8.5 percent, when the total NIH budget expanded about 2.25 percent.

If you go back to 2001, in fact, our rate of growth in NIH funding has surpassed such institutions as Johns Hopkins, or Pennsylvania, or the University of California-San Francisco, or the University of Michigan, about which I feel -- if you want to talk about football teams, we can talk about Michigan. And what obviously is the difference is that all of those schools have an enormous head start on UMDNJ. We have an enormous amount of catching up to do. But in terms of rate of growth-- And once you're as big as Hopkins, it's very hard to grow very substantially

from one year to the next. But in the narrow metric on research funding, we are growing more quickly than they are.

We're also partnering in more than 600 clinical trials involving many of the nation's leading drug and device companies, including just about all of those that are domiciled in New Jersey. The Cancer Institute of New Jersey alone has more than 130 active clinical trials underway.

And beyond research -- and in the midst of all the upheaval at the University -- we continue to perform our other core missions, I think, with real distinctions. Notwithstanding, or maybe in keeping with the principle that any press is good press, applications to all eight of our schools are up, and the quality of applicants has remained as high or improved.

We had very good news this last Spring from the National Resident Matching Program, which is how fourth-year medical students find out where they're going to do their residency training. On average, the national match rate is about 94 percent. All three of our medical schools exceeded that average. The Dental School residency process is a little different. But, again, our dental students are matched into high-quality residencies at a rate substantially higher than the national average.

A point of particular pride for us: The specialty publication, *Diverse Issues in Higher Education*, reported that in the United States, UMDNJ ranked first in the total number of minority students receiving their first professional degrees in medicine. That's been a characteristic of UMDNJ's -- commitment of UMDNJ since its inception.

And we continue to be very active as a provider of health care. We have more than 2 million patient visits a year. Everybody talks about University Hospital. I'll make some further mention of it. But I would

remind you we also own and operate University Behavioral HealthCare, which is the largest provider of mental health and substance abuse services in the State of New Jersey; the Broadway House for Continuing Care, which is the State's only specialized long-term care facility for people with HIV and AIDS; and in New Brunswick, the Eric B. Chandler Health Center, which is one of the very few community health centers in the nation owned by a medical school.

And the final commentary on the activities of the University in the midst of all the turmoil, the most remarkable statistic to me, is that in Fiscal Year 2006, philanthropic contributions to the University actually reached an all-time high, almost \$35 million, up about 5 or 6 percent from the previous year.

Now, obviously, there have been a lot of problems at UMDNJ and, I know, some very tough times. And I'm very conscious of the fact that some of the calls for sweeping organizational change have arisen, or certainly have been justified, as a response to what ails UMDNJ. And as the person now in charge with the -- along with our Board of Trustees, and my colleagues -- with the leadership role in cleaning up some of the messes created or ignored by previous administrations, let me just tell you that my own perception is that organizational structure was not among the principal sources of our problems. Governance was a serious problem, leadership was a serious problem, accountability was a serious problem, necessary oversight and controls were missing. And that produced some of the results you might expect when oversight and controls are missing.

But my sense is, there was a breakdown in governance, there was a breakdown in leadership, there was a breakdown in control. And it's

not clear to me how you solve those problems with organizational solutions. We are trying to solve those problems. We have made major changes already with, first, Governor Codey's appointment, and then those from Governor Corzine. The Board of Trustees has been considerably changed with six new appointees, all of whom, I think, meet the criteria for the kind of trustees Dr. Vagelos was talking about as desirable for a State university -- people of real stature, with expertise in areas of academic governance, of patient care, of ethics, and finance.

We have completely reorganized the Board and the way it works, under the leadership of our Chairman Bob Del Tufo, who I know many of you know, and who has his own record of distinguished public service in both State and Federal government. We have restructured the committees. We have them working substantially harder. The Finance and Audit Committee, for example, has been bifurcated to permit a much closer Board-level scrutiny of a range of activities. The Audit Committee now largely complies with the principles of Sarbanes-Oxley. To the extent that it isn't completely in compliance with Sarbanes-Oxley, it's because State law is in conflict with Sarbanes in a couple of areas. We have a new Governance and Ethics Committee which has responsibility for board evaluation and self-evaluation, education, and orientation.

We've totally reorganized the senior management of the University. We've brought in experts in hospital finance and compliance. We've reassigned lots of other people. We've put lots of new systems in place. With the guidance of the Board and the Federal Monitor, we've created a whole new Office of Compliance, with a new Vice President and Chief Compliance Officer, which will have more than two dozen positions

throughout the University, under a single leadership, a single risk assessment program, a single annual work plan. We are reinvigorating and restaffing our Office of Internal Audit.

Now, all of these are works in progress, I acknowledge, of the 28 positions we're going to have. In compliance, for example, only about a third of them are filled at the moment, although another third I expect will be filled by the end of the calendar year. We're having difficulty competing with the private sector and the big accounting firms in recruiting staff for our internal audit office, and so forth. But these are very much in progress.

At the same time, we sometimes tell ourselves that there is a certain element of the perfect storm involved here, because we're doing all of this in the context of the severe budgetary problems of the State and their impact on State higher education.

In the current fiscal year, we're working from an absolute decrease in State support, both for our academic activities and for the operation of University Hospital, at a time when, in addition to all the academic responsibilities we have, we have substantial cost associated with the Federal Monitor and with the building of our compliance and integrity programs.

We're trying to live within our means. And in doing so, we've had to make some extremely difficult decisions, including laying off a number of committed, conscientious employees. But I think we've managed to do it while protecting essential education and clinical activities, by reducing -- focusing mostly on administrative staff, on central administration, on people at the managerial level and supervisors, rather

than people on the front lines; and preserving at least some money for reinvestment in critical priorities, in information technology, and so forth.

And one of the things that happens in a budget crisis is you redouble your efforts at collaboration. Throughout the history of UMDNJ, our faculty and administrators have worked with colleagues at Rutgers, and NJIT, and at other institutions throughout the state. There are at least four community colleges, for example, with whom we have articulated associate, into bachelor, into master of science in a nursing program.

It's our experience -- and Dr. Vagelos' is, obviously, somewhat different -- that researchers don't need a lot of prompting to establish working relationships with their peers and to jointly seek research funding. There are administrative hassles involved, and we have a joint committee, that President McCormick and I have convened in the last several months, of people -- particularly in the New Brunswick-Piscataway area -- working on solving those administrative hassles. But, in fact, we are currently an active participant with Rutgers and/or NJIT on, roughly, \$35 million a year in collaborative research grants and contracts from NIH, from the Environmental Protection Agency, and from private funders like the Howard Hughes Medical Institute.

And I think if we want to expand the amount of external funding coming into the universities, the marginal dollars would best be expended on infrastructure -- whether it's IT, or research staff, or automation, or so forth -- that supports the researchers across institutions, rather than organizational solutions.

Having said all that, let me just conclude with three observations on the structure of higher education in New Jersey. First, I

think some of the effects that can be attributed to the elimination of the Department of Higher Education a decade ago probably ought to be rethought. If we're going to make strategic investments of the State in the long-term plan, whatever it is, for substantially improving the effectiveness and productivity of the research universities of the state, we need a mechanism for doing some really serious budgetary and capital planning, and for ensuring that it's carried out over a period of a number of years.

At the same time, such a mechanism could establish standards of accountability, of reporting, of tracking -- of not only State appropriations, but of all moneys flowing through those universities -- to develop the kind of system for fiscal accountability to the Legislature and to the people of New Jersey that I've heard a number of you mention already today. And that is so critical, I think, to future public confidence. That will have to underlie the kind of necessary budgetary support of higher education in this state.

Second, once we have that planning capability, we have to figure out a better way to integrate it with the appropriations process. We really have to find a way, I think, to move away from the current system, which makes it very difficult to undertake multiyear support.

If you look at just the total appropriations of State funds for UMDNJ over the last five years, for example, it looks like an oscilloscope read out, up and down depending on certain earmarks, or a certain state of the State budget, or so forth. And that makes it very difficult for anyone in my position to plan beyond the current fiscal year. You end up with a planning horizon that's the length of the given year's trajectory. And if we're going to generate long-term benefits for the State, we have to have a

mechanism -- as, I think, in the Vagelos Report were described mechanisms that have been used in California, in Texas, and some other states -- even within an annual appropriations process, for establishing some degree of stability and predictability of funding over a multiyear period.

Having said that, additional planning and oversight, predictability in budgeting will not solve all the issues discussed here today. At the end of the day, I'm going to sound like every other person who appears before the Legislature. And I've sort of been on the other side of this dialogue at other times. But the fact is, if we're going to achieve greatness in research and public research institutions in the State of New Jersey, through whatever mechanism, there's going to have to be more resources. And there's no getting around that question that-- The issue is, do you invest the resources in organizational solutions or in -- directly in recruiting new faculty, and building new facilities, and establishing new institutes, and so forth?

At UMDNJ, the portion of our total budget that comes from direct appropriations has declined pretty considerably over time. We have sought and received additional external funding, as we all should do. But this should be in addition to, not in place of, the State's fundamental commitment.

Certainly, if you talk about something like the Vagelos plan, and you talk about his estimate of \$1.3 billion, in 1992 dollars, I would suggest that that gets you to a certain level of productivity and so forth, at about the level at which we are today in New Brunswick-Piscataway. And you still have a ways to go to get from that level to the level of the Michigan, or the Texas, or the California.

Having said all that, just a final point, if I may. And I appreciate your indulgence. It came up at the very end of the questioning of Dr. McCormick. It has to be addressed at some point. And that is: Any plan for the future of higher education in the State of New Jersey, it seems to me, has to address, in one way or another, the continuing vital importance of University Hospital in Newark.

As you all know, it is the largest provider of charity care in the state. It's at a level in excess of \$100 million a year. Many of the patients we serve don't have options about going elsewhere. And, frankly, if you look at large safety-net hospitals in inner-city communities throughout the United States, it is almost inconceivable that we could operate it at a high level of quality without an intimate and very close relationship with the medical school. That's the only model we've really found, in public hospitals in the United States, to ensure an appropriate level of clinical and staff quality.

And the continued financial needs of that institution of course will depend, to some extent, on what the State does and what the Federal government does in addressing the problems of the uninsured, in financing charity care, and so on and so forth. But at least for the foreseeable future, the financial support of University Hospital is going to be a necessary part of the mix.

In conclusion, let me just say that I hope I've clarified some of the perceptions or misconceptions about UMDNJ and where we are. I remain convinced that whatever this Task Force recommends and the Legislature decides about the structure of higher education in the State of New Jersey, we have to have some capacity to have a formal, long-term care,

long-term planning mechanisms. They have to be integrated with budgetary planning over multiple years. And there has to be enough funds to be made available to carry out those budgetary decisions. If we are in a position to address those three problems, frankly then, I think one could do any of a number of different things with the table of organization and achieve very positive results. If we don't do those things, I fear that whatever we do with the table of organization, we're going to be at risk of falling short.

Again, I very much appreciate the opportunity to appear before you today. And I'm delighted to try to answer any questions you might have.

SENATOR LESNIAK: Senator Martin.

SENATOR MARTIN: Thank you.

I have deep concerns about your institution. But putting aside the governance, the accountability, and some of the programmatic problems which have lead to the possible loss of accreditation of various programs-- I'm not as much concerned about that as I am-- If I understood you correctly, you seem to be saying -- you're giving a defense of the status quo in the way in which the structure currently exists. And I'm not quite clear whether you think that's the best model, or whether you think it would cost too much to change.

I mean, we heard prior testimony that suggested that the usefulness of an integrated system would help undergraduates. We heard testimony that suggested that the administrative hassle -- I think that was the phrase that was used -- prevents the ability of colleagues to be able to work well -- that gets in the way of the best possible approach. We've heard

that a unified, under-one-university's application for Federal funding and other foundation grants generally is more successful. We heard all of that.

I heard you explain that UMDNJ seems to be working pretty well, especially given the cloud it's been under by its own. But my-- I think this Task Force is looking at whether we could do it better. And I didn't hear whether you thought -- although you have given, in my view, a defense of the current system -- whether we could do it better with some close look at possible integration.

And I'll just make an assumption that we would -- the funding that we thought would be necessary to achieve that would somehow be -- would be available for that purpose.

DR. VLADECK: Fair enough, Senator.

And I think that's a perfectly fair and appropriate question. The only way I can respond to it is by saying that I don't think these sorts of organizational issues are the critical issues. I agree that there are benefits for undergraduates who are interested in the sciences, to getting their undergraduate education in a university that has a medical school. And I think if we didn't change the current structure, we probably ought to address that deficiency, which I think is relatively easy to do.

I've heard the argument about collaboration and how it's easier under one roof than not, and how NIH and the funders don't look as favorably on multi-institutional grants. I can only say that doesn't seem to be our experience. I can also say that way back, early in my career, when I was at Columbia University, on the Health Sciences Campus, and I tried to do collaborative work with my colleagues on the main campus on 116th

Street, I might as well have been from Mars. It would have been better had I been from NYU than from the uptown campus.

So I'm not sure that the organizational structure is really that critical, frankly. And if you look across the states, if you look at California, or if you look at Texas, or you look at Michigan, those have different structures, one from another. What they have in common is a long-term mechanism within the state government to formulate a long-term plan and a commitment to carry it out in a governance structure which, like Rutgers -- unlike UMDNJ's historically -- is stable over time, attracts leading citizens of the state, and has some independent clout and independent influence in the public life of the state.

So I guess what I'm really saying to you -- and I'm not trying to be evasive, sir, really is to say, "Give me those three things. And it's less important what the exact alignment, or which school is under which president." I think you can do it in a lot of different ways. But I think if you don't address those issues, then whatever you do to seek to solve problems through alignment is at risk of falling short.

SENATOR MARTIN: Thank you.

ASSEMBLYMAN CARABALLO: Assemblywoman Karrow.

ASSEMBLYWOMAN KARROW: Thank you.

Just a couple of questions, Dr. Vladeck.

I asked earlier, of Dr. Vagelos -- regarding why is a total merger a better approach than fixing UMDNJ. And he said, "You can't fix UMDNJ." It sounds like--

DR. VLADECK: I'm sorry, can you--

ASSEMBLYWOMAN KARROW: I'm sorry if I said that too fast or not into the microphone.

I said, earlier-- My first question to Dr. Vagelos was: "Why is a total merger a better approach than fixing UMDNJ?" And he said, "You can't fix it. You can't fix UMDNJ." It sounds like you are totally disagreeing with that statement. So why is-- And are you saying that you don't think a merger is necessary, that you don't see it as the economic engine that he sees it as?

DR. VLADECK: Let me restate this in another way, which may be a little unfair or a little crass. And let's not get into too much numerology.

But assuming that we have continued political support for the restructuring of governance in the University, and for the somewhat greater independence and autonomy of the University's Board from the shorter-term, political influences -- both in the Executive and Legislative Branch -- and you say, "It's going to take a billion dollars over 10 years to implement something like the recommendations of the Vagelos Commission." It seems to me the policy question then is: If you gave Rutgers -- if you split up the billion dollars among the existing institutions, and told them to spend it on strengthening their research activities, would you get as much bang for your buck in that regard? And I think you would. I think, in fact, you might get more, because you'd be spending less of the money on reprinting the letterhead or trying to integrate the computer systems. I think that's a restatement of your question -- a response to your question.

SENATOR LESNIAK: If I may -- because I heard the testimony, as well. And I would like to take a shot at answering your question.

Because what I heard both Dr. Vagelos and Dr. McCormick say is that a research university without a medical school, and a medical school without a research university is always less than. And in New Jersey, we have no-- We don't stand for less than. We need to be excellent. And what they've proposed, I believe, is achieving excellence.

I disagree with Dr. Vladeck. But I have to-- I also want to say that you've done a wonderful job under very difficult circumstances.

DR. VLADECK: I appreciate that.

SENATOR LESNIAK: And that is the core issue we're here today for -- is achieving excellence.

DR. VLADECK: I appreciate that.

I would-- Again, if we're talking about structure-- If you look at Texas and California, which I think have been held up by Dr. Vagelos, appropriately, as models-- If I'm not mistaken, under the overall University of Texas umbrella, the leading medical schools -- public medical schools in the Texas system -- are all independent campuses. So the University of Texas, southwestern branch, in Dallas -- which is one of the top 10 medical universities in the United States -- is a self-contained campus, just the way the University of Texas at Austin -- which is the intellectual center for the liberal arts, and law, and some of the hard sciences. And Austin is, what, 250 miles from Dallas, which is two hours by road in Texas. (laughter)

So, I mean, that structure might well work under a single umbrella in-- I guess I'm a little skeptical about the geographical

realignment that Dr. Vagelos talked about. Maybe we ought to have one University of New Jersey, with a -- under it a medical school, a technology and engineering school, and a liberal arts and other professions schools. They all might make some degree of sense. But, again, I don't think that's the central problem. That's the only point I'm trying to make.

ASSEMBLYWOMAN KARROW: You represented earlier that -- regarding applying for grants -- your own personal experience at Columbia.

DR. VLADECK: Right.

ASSEMBLYWOMAN KARROW: That it may be better to have them separated. It was represented earlier that it would have more clout if it was coming out of the University of New Jersey, or New Jersey University.

Can you comment on-- We've got some contradictory--

DR. VLADECK: I suspect-- And we can try to get you some more data. I suspect that, certainly, the NIH study sections and so forth -- that's not a very critical variable in determining who gets funded. I think the quality of the proposal and the reputations of the researchers probably have a lot more to do than the organizational arrangements associated with it.

We have just received a very large grant from the National Institutes of Health, at Robert Wood Johnson Medical School, for a new center for translational research. That is a single institutional grant to UMDNJ, but is tied to the fact that we have very strong collaborative relationships with Rutgers. So, again, there is a recognition, I think, in the funding community of the growing importance of interdisciplinary and

interinstitutional collaboration. And maybe 10 years ago a multiple site submission might have been a handicap; and maybe 10 years from now it will be an advantage. I honestly don't feel, at the moment, it's that critical a determinant. It's the quality of the product and the quality of the researchers that, I think, is the overwhelming factor in determining what gets funded and what doesn't.

ASSEMBLYWOMAN KARROW: And my question is-- It sounds from your testimony that you addressed a lot of the deficiencies that are noted in a four-year-old study -- prior study. The one thing that you didn't address is regarding accountability. You said that you would look for some standard of accountability that everybody would have to live at -- live by. The Vagelos Report states that top universities provide detailed financial information right on the Internet, monthly, quarterly. It might be as simple as that, where everybody can reference your financials.

DR. VLADECK: We're getting there.

ASSEMBLYWOMAN KARROW: Okay.

DR. VLADECK: We don't, at the moment. It's been a particular source of the University's problems. But it is our intention to have monthly financial statements, current, on the Internet some time next calendar year.

ASSEMBLYWOMAN KARROW: I think we would all like to see you out of the newspapers, in a bad way.

DR. VLADECK: Well, I appreciate that.

SENATOR LESNIAK: Not necessarily out -- within your control. (laughter)

ASSEMBLYWOMAN KARROW: Correct.

Thank you.

ASSEMBLYMAN CARABALLO: Assemblywoman Beck.

SENATOR LESNIAK: We have a Senator up.

ASSEMBLYMAN CARABALLO: I'm sorry. I didn't realize.

SENATOR LESNIAK: They passed. The Senate passes.

SENATOR WEINBERG: Can--

SENATOR LESNIAK: Oh, yes, Senator.

SENATOR WEINBERG: I would like to ask a question that is not particularly apropos of what we're discussing here, but you touched on it in your remarks.

How much does the Federal Monitor cost us on a monthly basis?

DR. VLADECK: To date, since January, we have spent -- on the Federal Monitor, on his law firm, and the forensic accounting firm that does investigations for them-- Across the three, I believe, through September the total amount is about just short of \$8 million.

SENATOR WEINBERG: Thank you.

ASSEMBLYMAN CARABALLO: Assemblywoman Beck.

ASSEMBLYWOMAN BECK: Thank you.

I'll be quick.

If I could summarize your final comment, is it your sense that through better collaboration, not necessarily through a merger, we could -- and additional State and Federal dollars, that we could have this world-class research being done here in New Jersey?

DR. VLADECK: And the answer is, yes. And if I may, the plans for the Stem Cell Institute are consistent with -- as they now exist --

are consistent with that model. The Stem Cell Institute of New Jersey is a joint venture of UMDNJ and Rutgers. It exists already as a collaborative joint venture. It's made relatively modest progress, in part because it's had modest resources and in part because of the very unfortunate early death of its first director, who was a brilliant leader of the kind Dr. Vagelos was talking about.

With the new legislation, I think it will be, exactly, a model -- as everyone has discussed -- for the way in which the State can make a strategic investment in biomedical research that will produce important benefits to mankind, in terms of the impact on health. And I think we'll also spin off related economic development activity.

Now, the fact of the matter is, at the moment that is a joint venture of Rutgers and UMDNJ. If, at some point in the future, exactly the same building, with exactly the same scientists, and exactly the same core State funding became a unit of the *University of New Jersey-Central*, would that significantly increase its productivity, or its chances in doing world-class science, or having a very positive effect on economic development? I, frankly, would be skeptical. It would increase the chances of being associated with a first-class football team. (laughter)

SENATOR LESNIAK: And let me clear the air. We're not talking about changing the name of Rutgers. I don't think so.

ASSEMBLYWOMAN BECK: Okay. No, I actually didn't--

SENATOR LESNIAK: I certainly am not. We tried that once before. It didn't go far. (laughter)

ASSEMBLYWOMAN BECK: I didn't-- No, I didn't think that was the direction that we were headed.

I noted that Dr. McCormick had suggested that there are issues that this committee -- this Task Force needs to be thinking about when, as you said, geography-- There are certain schools in Newark that Rutgers has -- and obviously NJIT, and yourself -- that if all put together under one umbrella, as a single University of New Jersey-Newark, may or may not make sense.

I think you were sort of hinting at that. I don't mean to put words in your mouth, but I'm looking at your testimony. And I wonder if you maybe have the same feel about that. Because I know that's certainly something that I've got some concerns about. I mean, they certainly weren't built-- Rutgers, and UMDNJ, and NJIT weren't thinking that they were all going to be one entity at the time that they were putting those programs in place. So then there was no consideration as to whether or not it made sense pulling them all together.

DR. VLADECK: We haven't engaged in detail planning about this, but some preliminary thinking. If you had a University of Newark that was comprised of the components of the three universities, and you wanted to be a world-class, competitive university-- To start off, on the economy side, you have two schools of nursing. So we'd have to integrate them. Presumably that could be done. You don't really have much in the way of social work in any of the places -- the schools. So we-- It's a first-class health sciences university -- we'd want that. We'd have to talk to the Rutgers School of Pharmacy about pharmacy education, as well; and, more importantly, I think we'd have to, to achieve the vision of the Vagelos Report. We have New Jersey Medical School, which I think is better than its reputation; but we have holes which, to some extent, are filled in part by

other parts of the University outside Newark. So a first-class medical school that was part of the University of Newark would need a whole lot more geriatrics than we have now, and we'd have to recruit a bunch of people to do that. We couldn't keep borrowing them from Stratford. We'd have to develop some capability in health sciences -- health services research and health economics, where we have some strength in New Brunswick, and where Rutgers has considerable strength in New Brunswick, but we have none in Newark.

So if you put all the pieces together, you'd have to do some subtracting and merging. And then I think if you were serious about a full-service, first-class university, there would be holes you would have to fill, as well.

ASSEMBLYWOMAN BECK: Just the last thing, which is -- you've mentioned a couple of times about a department of higher education, and the need for long-term strategy. And I just wanted your comment again on that. Is it your thought that that should be a department that's reestablished?

DR. VLADECK: Well, I don't know what the appropriate governmental mechanism is. Maybe if the current Commission on Higher Education had more resources and more authority, that would be an appropriate way to do it. All I know, for example, is we are looking at-- We have capital projects underway, and we have capital projects that we are planning on undertaking over the next fiscal year that I think are pretty good projects. But the largest one is an expansion of our educational and research capabilities in Camden, which fits with our programmatic agenda in Camden. But I'm not sure if one were building a new comprehensive

university in Camden that's the building you would put up with that kind of pledge of State credit associated with it.

And going forward, thereafter, we have-- Believe me, I can ask the faculty and the people around University Hospital. I can generate a couple of billion dollars worth of capital needs, quite easily. But since eventually the State taxpayers are going to be on the hook, I would certainly be more comfortable if it was tied to some explicit statement of State policy or State direction. Again, whether it's part of three regional universities, or one overall university, or whatever -- of where we intend to get, in terms of--

We are mostly a nonresidential university at the moment. We've just opened student housing in Newark. Are we going to do more of that or less of that? Are we going to share? If there's going to a University of Newark-- We have residential facilities, NJIT has residential facilities, Rutgers-Newark has-- Between them, we can't house enough of our students. We ought to have one plan.

No matter what this Task Force ends up recommending, I think under any set of circumstances we ought to do better than we've done in the last decade about making decisions about capital expenditures and capital allocations in higher education.

ASSEMBLYWOMAN BECK: Thank you.

ASSEMBLYMAN CARABALLO: Dr. Vladeck, thank you very much. We appreciate your testimony.

DR. VLADECK: My pleasure. I look forward to meeting with you again.

SENATOR LESNIAK: And I again want to thank you and commend you for the great job you've done--

DR. VLADECK: Thank you, Senator. I appreciate it.

SENATOR LESNIAK: --under very difficult circumstances.

DR. VALDECK: I appreciate it very much.

SENATOR LESNIAK: Thank you.

Dr. Altenkirch.

ROBERT A. ALTENKIRCH, Ph.D.: Thank you, Chairman Lesniak, Chairman Caraballo, and the members of the Task Force.

I appreciate the opportunity to be here this afternoon to share my thinking on the future of New Jersey's public research universities with the members of this specially constituted Task Force on Higher Education and the Economy, as you consider a -- as we see an important but, yet, complex decision about whether our State's public research university assets are optimally organized to provide maximum economic and educational benefits to New Jersey citizens, or if a realignment is in order.

I think that building first on the work of the Vagelos Commission, and more recently on the vision of Governor Corzine's Economic Growth Strategy, there is no doubt that world-class research universities are a necessary ingredient in igniting innovation, driving economic development, and improving the quality of life in general.

I know our leaders understand full well that the global economy is becoming knowledge-driven at an increasing rate. It's a challenge that we at NJIT, as well as our higher education partners in Newark, have responded to in the most direct and practical sense.

In fact, the University Heights section of Newark, where we are located, brings together a most dynamic array of educational assets with a real-world, practical focus. Taken together, the higher education institutions of Newark constitute an incredibly rich and diverse community of more than 40,000 students, faculty, and staff serving the city and the State.

The higher education partners in Newark are a formidable economic driver for the city and the region, working cooperatively to grow University Heights Science Park within the Newark Innovation Zone; grow the residential student, faculty, and staff population in the city; attract businesses; participate in city planning and development; and lend expertise to civic organizations and schools.

But there is an opportunity for us to build further on our Newark experience and strengths and have a greater impact. The state's economic growth in the years ahead will be critically dependent on a vision that brings our research universities in line with the needs of New Jersey's major economic drivers, for example the pharmaceutical industry, the biotech industry, biomedical device industry, homeland security technology development, along with other industries and businesses that we might incubate or recruit.

At NJIT, our vision focuses very strongly on practical, real-world issues. The result is an innovative blueprint that emphasizes support for research and development, and its impact on the economy through technology transfer and job creation in such areas as stem cell therapies, biomedical devices, engineering, information and communications technology, nanotechnology, homeland security. And NJIT's Enterprise

Development Center is the state's largest business incubator. It helps start-up companies commercialize ideas, creates businesses that generate jobs, it interacts with larger businesses, and bolsters the state's economy.

Carrying forward our educational research and economic development mission, we've developed extensive collaborations with other Newark higher education institutions through cross-registration efforts, welcoming and supporting community college transfer students, and in joint academic programs and research efforts.

As one example of this collaboration -- as mentioned by Dr. Vladeck -- the three research universities in Newark were awarded a million dollar, three-year grant from the prestigious Howard Hughes Medical Institute to develop a novel doctoral program designed to educate future neurologists who can integrate approaches used in mathematics, biomedical sciences, and computation as they investigate emerging developments in the neurosciences. Collaborations are a frequent feature among the Newark institutions, as they are both nationally and worldwide.

But while such collaborations are important in many respects, they often have a finite shelf life. And when completed, they do not result in a dynamic and unified vision for how higher education can best serve Newark and impact the urgent economic growth requirements of both the city and the state.

In my judgment, the real questions are these: First, can the higher education assets of Newark be leveraged beyond collaboration to impact, more strongly, the economy of the city and state? And, second, can we equip our citizens with the tools needed to compete effectively in the

knowledge- and technology-driven global economy and, thus, participate fully in the promise of America?

I believe the answer to both these questions is an unqualified “yes.” But the pathway to success is one that needs to be developed carefully. It’s a path that must contain a clear and compelling vision of a greater good for the city and the state, a vision that extends well-beyond what is produced by merely piecing together various parts of the universities or higher education assets.

What we need is a clear vision embedded in a logical, institutional framework or structure to leverage the existing higher education strengths in Newark, and exploit these strengths for a competitive advantage for the city, and the state, and its citizens. Much of higher education’s economic impact derives from the research and development mission of a research university. In Newark, more than 80 percent of the research enterprise is conducted in the life sciences, medicine, engineering, and technology-related fields.

But the point I particularly want to stress is that it is at the interface of these disciplines where the advances in the life sciences and medicine will occur, advances in which a university in Newark can take a very significant lead. One need only look at the road map developed by the National Institutes of Health for evidence of how dramatic and often unexpected advances in the life sciences have repeatedly emerged from the systematic interaction of what had previously been thought to be unrelated disciplines, such as the biological and life sciences, and engineering. The road map is really the translational research effort described by Dr. Vagelos.

I would ask you to consider just two examples that illustrate this point. First, recent advances in a novel method for measuring blood pressure in the heart by measuring blood volume changes in the arm, developed at Virginia Commonwealth University's Reanimation Engineering Shock Center; and, second, software advances in tissue engineering used to design bio-artificial arteries from Teflon, collagen, and muscle cells developed at Rensselaer Polytechnic Institute. Both of these advances have occurred at the interface of medicine, engineering, and technology. And these advances have real impact for health care and for the economy.

Bringing together Newark's medical and technological resources, that would result in an institution with a vision of working at these disciplinary interfaces, would ensure that the state's largest city emerges as a national leader based on its focused strengths in engineering, design, and the applied physical, biological, and biomedical sciences.

I'd also stress that if a restructuring of research university resources in Newark were to occur, the new model must be organized such that the city's potential is assured well into the future. Under no circumstances should Newark be left as home only to branch campuses, with a vision for higher education in Newark set at main campuses elsewhere, out of context. It would be a disservice to the people of Newark, as well as to the long-term interests of the State of New Jersey. Great cities need and deserve great hometown universities intimately connected to the city, serving its citizens, and -- in the case of Newark, including University Hospital and the services it provides -- with a vision and focus that is a major economic driver.

So if a realignment of the State's research university assets were in fact to take place, one highly desirable result would be a world-class university located in Newark; a university differentiated by its applied focus in a range of disciplines, including the liberal arts and social sciences, with an emphasis at this institution on engineering; physical, biological, and medical sciences; and what can be accomplished at those interfaces to advance science, health care, and impact the economy. Students in all majors, then, would have access to an environment steeped in technology, a pervasive force in society with which all citizens must be comfortable for personal economic success.

But whatever we do to create a model for a world-class research university in New Jersey, it must be designed with the overriding vision of the state's greater good in mind. The worst possible outcome, in my judgment, would be a reshuffling of academic assets without a compelling vision or a strategy that fully meets the ultimate test of clear and significant benefit for the state. Along these same lines, we must resist the temptation to embrace solutions to realign institutions that are based on the idea that we can retrofit later what we leave incomplete today. The truth is, we have to get it right the first time around, or we're unlikely to get it right at all.

So with that consideration in mind, I would like to conclude with some final comments. And I'd be happy, of course, to answer some questions later.

First, I would note that institutional vision and leadership are crucial factors in any discussion of university realignment. We must be very careful about implementation. In Newark, as well as other research university locations, local autonomy, coupled with clear mechanisms for

accountability to the State and its people, is essential for avoiding top-heavy systems of bureaucracy.

Let me close by noting that NJIT began in Newark 125 years ago this year, when civic leaders recognized that the city's prosperity depended upon education, as well as on raw materials and factories. While science and technology have advanced dramatically through the past century, the need to develop greater technological knowledge to impact the economy has grown far stronger. The higher education assets in Newark can be leveraged to move beyond collaboration to a vision of what the enhanced interface between the physical sciences and technology, on the one hand, and the medical and life sciences, on the other, can mean to the economy of the city and the State, as well as to the technological education of a diverse student body equipped to compete favorably in today's and tomorrow's knowledge-driven economy.

Thank you very much for the opportunity.

ASSEMBLYMAN CARABALLO: Senator Martin.

SENATOR MARTIN: Thank you for your remarks.

You mentioned, toward the beginning -- and stressed the fact that collaboration already exists and is occurring. And you gave me, at least, the impression that you thought it was reasonably successful. Dr. Vagelos, I think -- if I read him correctly -- seemed to indicate that that collaboration was not as good as it could be.

I just want to share with you, also, some skepticism on my part, based upon a personal experience, having -- as I teach now, with Doctor/Assemblyman Caraballo, at Seton Hall. I was delegated by the Dean of our law school, about 10 years ago, to NJIT, to meet with some

people over there who were interested in creating some kind of program that dealt -- I'll keep it general -- in the field of intellectual property, that would deal with certain trademarks, patents, and stuff. So that's where the legal side came in. But it had to do with your various engineering enterprises and some of your start-up industries.

While I was listening to whether a certain need was there -- and I came to realize that it was -- I asked what I thought was a simple question: Why would NJIT approach Seton Hall Law School to talk about a collaborative program? And the answer I got was-- And I suggested, "You have Rutgers Law School within your backyard, and it's a public university, and side-by-side to NJIT." The answer I got at the time was that it was just too administratively difficult for these two public universities to be able to work; and it would take so long, and there were so many potential, sort of, hurdles that had to be cleared. I think NJIT mostly blamed Rutgers with its structure, with the campus in Newark and then having to get clearance in New Brunswick -- that they thought it would be much better to work with Seton Hall.

Hearing that, I just have some concerns about the thought that things are working very well with the potential of collaboration among those three institutions existing side-by-side on University Heights. Maybe you could comment on that.

DR. ALTENKIRCH: Well, I would say every collaboration is not as smooth as it might be. I think my point was a little bit different than the issue you raise. And that is that there is collaboration. It does occur. Sometimes it's not easy. But the point is that when the collaboration is finished, it has a finite shelf life. And you walk away from that

collaboration. Whereas, if you integrated in the same environment, that collaboration can build a further collaboration, which can build a further collaboration. Because you're sitting side-by-side, day in and day out, just as Dr. Vagelos commented.

SENATOR MARTIN: Well, I guess my comment really is, would it be better to avoid collaboration by creating these programs within the same institution, rather than having to negotiate some kind of complex and difficult collaboration?

DR. ALTENKIRCH: Well, I think, oftentimes then, you'd be reduplicating effort.

SENATOR MARTIN: Within the same institution?

SENATOR LESNIAK: If I may.

Senator, I think the question was answered. And that is, that if you have a continuing institution, that collaboration results in continued benefits. It doesn't just end when you have a collaboration.

I mean, I think the answer was, "yes," that it works better under one roof. Isn't that--

DR. ALTENKIRCH: Yes, that was the point.

SENATOR MARTIN: Thank you.

ASSEMBLYMAN CARABALLO: Assemblywoman Karrow.

ASSEMBLYWOMAN KARROW: Thank you.

Just one question.

In your testimony, you -- and I'm just going to read the sentence that you said: "Along these same lines, we must resist the temptation to embrace solutions to realign institutions that are based on the idea that we can retrofit later what we leave incomplete today." What

exactly do you have in mind that we might be leaving incomplete today? President McCormick mentioned things that were of his concern: debt realignment, land, contracts, endowments. What's on your mind?

DR. ALTENKIRCH: Well, no, I'm not speaking of those details.

I think that the first piece of business is to think about the vision -- what impact the vision will have. And the second order of business is, what are the pitfalls involved in implementing that vision; many of which you just mentioned and Dr. McCormick mentioned.

What I was referring to there was that you have to get the vision right. And I think that's what Dr. Vagelos was talking about. In other words, you have to get the vision of the individual institutions correct. You have to put the components together with that vision in mind, as opposed to simply sticking them together, organizationally. Because without the vision, without the common direction, then you really don't accomplish too much. And it's very difficult to change the culture after several years. And so you might as well begin the direction and the culture from Day 1, or else it's going to be very difficult to get it right.

ASSEMBLYWOMAN KARROW: Well, the State Legislature is famous for that. We have unintended consequences in almost every law ever created. So, I mean, the devil is in the details. And that's my concern -- is that the vision is very pretty. The implementation, if we don't talk about the details, are going to give us tremendous unintended consequences, which may be good, or they may be very bad.

DR. ALTENKIRCH: Well, I think you do have to talk about the details. But if you decide that the vision is not right, then you don't have to talk about them.

ASSEMBLYWOMAN KARROW: Thanks.

DR. ALTENKIRCH: So I think you want to avoid a lot of work until you've decided that that's the work that you want to do.

ASSEMBLYWOMAN KARROW: Thank you.

ASSEMBLYMAN CARABALLO: Senator Weinberg.

SENATOR WEINBERG: You described the collaboration and the slightly over \$1 million grant from the Howard Hughes initiative. How did that collaboration begin? How did the three of you get together to--

DR. ALTENKIRCH: I was removed from those details, but my-- From what I can see from afar is that we have a fairly strong group in applied mathematics, in mathematical biology. And the leader of that group had conversations with faculty at UMD and Rutgers to go after one of these Howard Hughes grants. And we don't have the strength in neuroscience that UMD and/or Rutgers-Newark has. And so it was a combination of the mathematical strengths that we have, computer science strengths that we have, and the strengths in neuroscience at UMD and Rutgers. But my sense is, it was faculty-driven. So they do know each other.

SENATOR LESNIAK: Any other questions? (no response)

Thank you very much.

I'd love to hear about your vision, because you know we can do better, as I sense it. And you have a thirst and a yearning to do better. And I share with you that thirst and yearning.

Thank you very much.

DR. ALTENKIRCH: Thank you very much.

SENATOR LESNIAK: Next committee meeting will be on December 19. I would ask any of the committee members, if you would like someone to be invited to testify, to let us know -- you know, to provide testimony.

Thank you.

ASSEMBLYMAN CARABALLO: See you guys.

SENATOR LESNIAK: Happy Thanksgiving.

Go Rutgers.

(MEETING CONCLUDED)