The author of this paper predicts that by 1990, enrollments in metropolitan institutions of higher education will increase by 100% and that costs for these same institutions will increase by 200%. In other words, statistics reveal that in 1968 there were 4.1 million students enrolled in metropolitan colleges and universities and that the cost at that time was approximately $8 billion; by 1990 enrollment is projected to reach 8.2 million and cost $24 billion. In examining this projection it was found that the results depended heavily on a number of basic assumptions: (1) there will be a large increase in the number of disadvantaged students—particularly urban blacks and Spanish Americans—enrolling in higher education; (2) an increasing number of married women will resume their education after raising their families; (3) an increasing number of men and women employed full-time will continue for a large portion of their lives in organized educational programs; (4) a large number of technical and vocational programs will be upgraded to the college level; and (5) automation and mechanization will continue to reduce jobs available—a factor that will encourage many to stay in college. (HS)
A detailed discussion of the Charts
presented in the Management Division publication

BY 1990: DOUBLED ENROLLMENTS,
TRIPLED COSTS
As a lifetime resident of large cities it is indeed a pleasure to speak to you today. Harold Gores put great trust in me by asking me to be one of your speakers. When I asked what he wanted me to talk about, he said, "about 22 minutes." If my comments run longer than you think they should, my hope is that you will understand that I am merely trying to do my duty and to meet the precise specifications of my assignment. Harold did say that he was interested in some of our figures and projections, and for this we have prepared some charts on slides which
we will show from time to time during the course of my
comments.

Twelve years ago come next March, Beardsley Ruml,
then retired from Macy's, along with Alvin C. Eurich and
Philip Coombs, then of the Ford Foundation, propelled me
into a new career. They had established a field of
economic analysis which they called the economics of
higher education, and I was the first person they initiated
into it. Seymour Harris, then professor of economics at
Harvard, Theodore Schultz, professor of economics at the
University of Chicago, and John Vaisey of the University
of London also entered the field, but only on a part-time
basis.

Today, a decade after we started, there are still
relatively few people working in this field, a number
here and a few in Europe. But the economics of higher education, which draws heavily upon other fields of economic analysis, is even more important now than it was a dozen years ago. It provides a framework within which my associates and I have carried on a variety of studies -- first for Dr. Ruml, then for the Ford Foundation, and now for the Academy for Educational Development.

These studies have been concerned with long range planning, enrollment projections, and the management and financing of colleges and universities. But until now we have been working on national or statewide studies. After Harold Gores called me, my associates suggested that it might be interesting to do a little study on the outlook for higher education in the big cities -- to see what we would find of interest in the facts, figures, and projections.
Total Population

We looked first at the total population and found that at 8 o'clock this morning when you and I were eating breakfast the number of people in this country was estimated to be 204,171,411. We checked the figure with the director of the census just to be sure we could bring you the latest number, down to the last man, woman, and child.

We looked next at cities. As most of you probably know, the Census Bureau calls places with the largest concentrations of population "standard metropolitan statistical areas." This is government jargon for what you and I would call the big cities and their suburbs. In 1966 there were 221 such areas in the country. In the aggregate they contained 133 million people -- about 63
per cent of the entire population of the country.

During the generation ahead, these metropolitan areas can be expected to grow -- both in population and geographic size -- and their population is likely to grow faster than population in the remainder of the country, that is, in the small towns and the rural areas. By 1990 it is reasonable to expect that the aggregate population of all metropolitan areas will be at least 179 million people.

For comparison we note that this figure -- 179 million people in cities and suburbs alone in 1990 -- is about equal to the total of the entire population of the U.S. in 1960.

Population in 100 areas

So much for the grand total. For this conference, however, it seemed more pertinent for us to narrow our
study down to the largest cities and their environs.

So my associates then looked into population trends in the 100 largest standard metropolitan statistical areas, those that had a population of 250,000 or more. For these figures we have a chart. (Chart 1)
Population in 100 Big Cities 1968 and 1990

Includes entire standard metropolitan statistical area
In 1968 about 114 million people lived in these 100 areas. By 1990, using reasonable assumptions as to births and deaths, the migration between cities of various sizes, and the continued movement of population out of rural areas into urban and suburban locations, we can expect the number to go up to at least 156 million people.

As anyone who reads the newspapers knows, the biggest cities and their suburbs have tough problems. By 1990 these problems will undoubtedly be bigger and tougher than they are today. Finding solutions will be even more baffling. One of the most baffling problems of all is likely to be what to do about making higher education available to all who wish it and can profit from it.

Young people in the population

My statistical associates then decided that we ought
to try to find out how many young people are now in the market for higher education in the big cities and their suburbs and how many were going to be there by 1990. They found some data in the census files and then worked out some projections.

The figures show that in 1968 the number of young people ages 18 to 24 years in the 100 biggest metropolitan areas totaled 12.5 million.

By 1990, the total of this age group can be expected to be 26 per cent higher than in 1968, that is, up from 12.5 million to 15.7 million people. (see Chart 1)

We used the 18 to 24 year old age group because we felt it the closest census approximation of the number of potential college students. Obviously some people in this age group have already graduated from college. Some are in
the army. A few are in hospitals, prisons, or are traveling overseas. Some are mothers bringing up small children, or fathers beginning to support families. On the other hand, some older persons who may be enrolled in graduate and professional schools are not included in this age group. Neither are many persons enrolled in continuing education or adult education, including many regular credit courses. The 18 to 24 year old age group isn't perfect, then, as a statistical indicator, but it is the best available, so we used it.

What do we know about this age group? A reasonable conclusion is that: a large proportion will continue to have one objective in common; that is, they, their parents, and their parents' parents will want them to go to college.

Barring all-out war or other national disaster, then, the prospects are for a greatly increased demand for
higher education in the decade or two ahead.

For a number of years public opinion polls have emphasized this public attitude. A Lou Harris survey (about 1965) reported, for example, that nearly all parents with children 18 years of age or under say that they plan to send their children to college. What is more, 82 per cent of those parents told the pollsters that it is going to be "extremely important for their children to get a college education."

This was not just a casual set of observations. The Harris organization reported that its investigation had been in the form of an "in-depth" survey of a cross-section of parents of children below college age. The researchers said that the people interviewed now look on a college education as an essential, in the same way people once
viewed high school education.

Elmo Roper's organization obtained essentially the same information for the Fund for the Advancement of Education a decade ago. Roper did, however, provide one item of information that was not in the Harris survey -- that is, that on the average parents had not been able to save any substantial amount of money for the college education of their children. They did not know how the college education would be paid for; but no matter, they were counting on that college education for their children anyway.

Then, this year George Gallup polled mothers of first grade children to see what kinds of thoughts they had about their children's future education. Only 8 percent of the mothers surveyed said it made no difference if their children didn't go to college, as long as they
got a good paying job after high school. On the other hand, 92 per cent were divided as between those who would like their children to go to college and those who would be "terribly disappointed" if they didn't.

College and university enrollment

Having arrived at the foregoing estimates on the size of the 18 to 24 year old population and knowing of the great interest of parents in their young people going to college, my statistical associates then turned their attention to the possible enrollment in colleges and universities by 1990.

Some rough data showed that in the 100 biggest cities and their suburbs the number of students enrolled full time or part time in some institution of higher education (as defined by the Office of Education) can be expected to rise from about 4.1 million people in 1968 to about
8.2 million people in 1990 -- an increase of 100 per cent.

For these figures we have another chart. (Chart 2)
Chart 2

Higher Education Enrollment and Cost for Students in 100 Big Cities 1968 and 1990

Enrollment in Millions

- 1968: 4.1
- 1990: 8.2

Includes entire standard metropolitan statistical area.

Cost

- 1968: $8
- 1990: $24
We may be off a year or two in our estimates of these enrollment totals, but the trend lines seem to be pretty well set and the total is pretty certain to be reached. However, there is a time margin and if it turns out that total enrollment in these large cities and their suburbs doesn't reach 8.2 million students until 1991 or 1992 -- or reaches it earlier than 1990 -- please don't hold this timetable error against me too strongly.

This is a higher projection than we had expected. In examining it we found that the level of our projection depended heavily on a number of basic assumptions, such as:

1. There will be a large increase in the number of disadvantaged students, particularly urban blacks and Spanish Americans, enrolling in higher education.

2. An increasing number of married women will resume their education after raising their families.
3. An increasing number of men and women employed full time will continue for a large portion of their lives in organized educational programs.

4. A large number of technical and vocational programs will be upgraded to the college level -- particularly junior colleges, but in some cases at senior colleges, too, for specialties such as nursing and professional work in other health fields.

5. Automation and mechanization will continue to reduce jobs available to young people -- a factor which will encourage many to stay in college because of lack of a better alternative.

This projection is also higher than it might otherwise have been because it assumes the development of what we believe to be a rapidly emerging new concept -- that is, the "right" to go to college -- not for the few, the most affluent, and the most academically gifted, but for everyone who wishes to go and can profit therefrom.
Today this new right is blossoming before our very eyes.

By 1990 the national acceptance of this inalienable right can be expected to have produced higher enrollments than previously anticipated. This will require many new institutions, new types of programs, new emphases, new types of equipment, and probably new kinds of facilities.

It is the growing acceptance of this "right to go to college" that underlies much of the debate about who should be admitted to New York City's tuition-free senior colleges.

As some of you probably know, a new plan has recently been approved in New York City. It provides that in the future all high school seniors who apply with academic averages of 80 or above, or who rank in the top half of their graduating classes, will be assured entry to one of the university's senior colleges. All other high-school graduates will be
eligible to attend a two-year community college.

This is a big commitment. It is certainly going to be controversial, but it is the wave of the future. New York is the first city to make such a commitment, but a good guess is that other cities can be expected to follow soon. Obviously there is a revolution of rising educational expectations throughout the country. Going to college has become a political and social, as well as educational, issue. Educators aren't going to have as much to say as in the past about who goes to college, or about the level of college and university enrollment. Legislators, parents, and students instead are likely to have much more to say.

It is this new concept, then, rather than demographic trends, that has sent our percentages soaring. The magnitude of these increases are thought-provoking to say the least. If, for example, the University of Minnesota
which has, I think, the largest enrollment on a single urban campus, reflected the projections for the 100 largest cities, no fewer than 100,000 students might be knocking on the doors of its St. Paul campus alone by the fall of 1990. The chances are against concentrations of this size, however. Although every educational institution in the big cities will surely grow much larger by 1990, many new higher education institutions are likely to be established. Also there are likely to be many more branch campuses and extension centers.

It is also reasonable to speculate that many of the new institutions, campuses, and centers will become parts of educational holding companies. A few of these holding companies are already on the scene; for example, the State University of New York with 68 units distributed
across the entire state of New York ranging from community colleges to graduate centers and separate professional schools; also the University of California with its many campuses, and Pennsylvania State University with its many branches.

Most of these educational holding companies are likely to be on a statewide basis, but not all of them -- there also may be some national chains. Such alliances are already budding, say, in the Associated Colleges of the Midwest and the Great Lakes Colleges Association. Comparable possibilities exist elsewhere.

The key factor leading to this development, it seems to me, is not educational, social, or political, but instead, economic. The sheer cost of education may precipitate this new development on a nationwide basis.
Cost

With this possibility in mind, I next asked my statistical associates to look at the cost of education, now and in 1990. We included a small amount of inflation in our estimates for the future in order to make the figures as reasonable as possible. As you have already noted, we have the figures on the right hand side of Chart 2.

If 8.2 million students in the 100 biggest cities and their suburbs enroll in higher education institutions by 1990 -- some full time, some part time, some year-round, some two semesters, and some one semester -- a good guess is that the total cost of higher education for the young people in these communities will be no less than $24 billion a year compared with $8 billion in 1968. This is a 200 per
cent increase as shown in Chart 2. These are estimates covering operating costs only. They do not include the cost of capital construction nor intercollegiate athletics (for which no authentic financial information has ever been recorded).

Obviously $24 billion, even in 1990, is going to be a great deal of money for higher education in the 100 communities and their suburbs -- even in a country with a greatly expanded labor force, increased national income, relatively stable prices, and, we hope and pray, a period of prolonged peace. However, I think that with a little figuring you will agree that the amount is a reasonable estimate, give or take a few years and possibly a few millions of dollars one way or the other.

Let me recap the figures before I proceed: For this we have Chart 3.
Percentage Changes in Higher Education Picture in 100 Big Cities 1968-1990

18-24 year olds: +26%
Enrollment: +100%
Cost: +200%
Here we show that:

- The number of 18 to 24 year olds is expected to be up 26 per cent.

- Enrollment in 100 cities and their suburbs is expected to be up 100 per cent.

- Costs in 100 cities and their suburbs is expected to be up 200 per cent.

As mentioned before, we may be off a little. But these are our best guesses and they are close enough to illustrate the point. They certainly give one a lot to think about.

**Financing**

One immediate question that presents itself is:

Who pays? Here, too, it seems to me that the trend lines have already been set. Private contributions, endowment income, and tuition, while they are certainly likely to be larger in total dollar amounts than they are now, are
bound to be a smaller proportion of the total. More and more of the financing can be expected to come from taxes, specifically those levied by state governments and the federal government.

Nowadays dozens of committees, panels, task forces, and research teams have come up with the need for more state -- and especially more federal -- money for higher education. But it seems to us that they all pull their punches when they get down to specific figures. For example, take a look at the Carnegie Commission figures. These are on the left hand side of Chart 4.
Who Will Pay for Higher Education in 1990?

Chart 4

- Government: 52%
- Other: 48%
- Other: 50%
- Government: 70%
The Carnegie Commission figures that the percentage of higher education money coming from all levels of government is:

- 46 per cent of the total in 1958
- 48 per cent of the total in 1968
- 49 per cent of the total in 1977

Presumably the Commission's figures would come out to 52 per cent in 1990, and we have put that estimate on the chart.

My associates and I are persuaded that the 1990 percentage is likely to be higher. We are impressed by the political punch of an idea whose time has come -- an idea such as the "right to higher education" or at least the "right to a postsecondary education." Our guess is that in the future much more of the money will come from government via taxes than anyone has been forecasting; and that the
proportion of public support for higher education from
taxes will follow a trend more like:

- 48 per cent of the total in 1968
- 55 per cent of the total in 1975
- 70 per cent of the total in 1990

We come to these percentages from a study of what
has been happening to the finances of British universities,
particularly Oxford and Cambridge, since the end of World
War II, to the finances of Canadian universities, and to
the outlook for the financing of our own private colleges
and universities which are struggling under what has become
a practically unbearable load.

This is the last of the charts, and at this point it
might be appropriate to say that these projections have not
been made lightly nor without some knowledge of their
implications. My statistical associates have run through the figures three or four times, and the total number of man-hours we have spent on them suggests that it is a good thing we don't give ourselves assignments like this one too often.

However, there was a purpose to all this statistical exercising. These figures portray more effectively than other material we have been able to assemble the background against which the picture of higher education in the big cities in the future has to be pasted together.

Uncommon problems

The rapid rise in enrollment in the big cities and their suburbs accompanied, as we have shown, by rapidly increasing costs can be expected to present the movers and shapers of higher education with a great many uncommon
problems, to coin a phrase, for want of a better term. For these many people are going to have to work out some uncommon solutions.

It would take all day to talk about all of the uncommon problems that are on the agenda of higher education administrators between now and 1990. Let me mention just three briefly to show their range:

1. What will we teach the increasing number of young people coming into colleges and universities from the central cities?

The fact is many urban universities and colleges don't know the answer to this question and are struggling with this problem today. We don't know what to offer that is meaningful and useful to present-day students and the oncoming generations.
2. **How do we improve learning?**

Here, too, we don't know the answers. New techniques will probably have to be developed; some we are told are on the horizon. For example, there are those companies that made the competitive bids in Texarkana on the Texas and Arkansas border a few months ago. In case you didn't hear about the details -- briefly, three small school districts in that town told companies in the educational technology field that they could bid on the opportunity of demonstrating that they could do a better teaching job than traditional educators. The school district will pay if the company can teach well enough to bring potential dropouts up to grade level in basic English and mathematics. There will be no pay if the company fails.

Also, under the contract terms, the school district
can retest the students six months later to determine whether their educational improvement has been maintained.

If it hasn't, the company would lose some money.

Half a dozen companies put in bids. Obviously they believe so much in possible new teaching methods that they were willing not to be paid unless the kids learned.

Let's hope the winning bidder succeeds. The results will be reported in a few months.

3. How do we manage the higher education enterprise?

Today educational enterprises everywhere have grown so large that they are becoming mammoth business-type operations. Even small colleges spend millions of dollars a year. A large university budget runs into tens of millions. A university system such as the City University of New York has a budget of $241 million, and systems operating
government-financed research centers such as the University of California have totals that are even higher.

Until now many of the men who have been put in charge of these vast enterprises had little, if any, administrative experience or background. Many a department chairman or an academic scholar has suddenly found himself propelled into an administrative job of mammoth proportions with little administrative experience. He is entirely unprepared for what is about to happen as he takes over his new job.

My guess is that the field of higher education won't be able to continue the historical technique of executive personnel selection far into the future. Instead, a technique built around the development of a new breed of academic administrator, trained as carefully as a corporation executive, is likely to emerge. That academic administrator
will need to be trained to be able to do everything that a big businessman can do, and then some. Included may be many onerous administrative duties, such as labor relations, client relations, community relations, efficient production, squeezing unit costs, meeting impossible budgets, etc. To fill this difficult, competitive, and often unpleasant job it seems to me that in the future educational institutions are going to have to pay salaries at a level that is entirely new for the education market if they want to be in a position to get able and effective men.

With the specifications of the job presidents usually do, it seems to me that the right salary for the president of the State University of New York and the University of California system today is probably close to $150,000 a year -- or about three times what Sam Gould or Charles
Hitch is probably paid. And why not at this level? Sam Gould runs 68 plants scattered over hundreds of miles of New York State with an aggregate daily clientele of no less than a quarter of a million young people. He is responsible for a payroll of probably no fewer than 25,000 people a week.

Nor is this all. For a president to be able to do his job well, he needs five or six assistants at the vice presidential level. On today's market they are worth between $75,000 and $100,000 a year, and it takes this salary level to be competitive.

I mention these figures to indicate the kind of administrative man I have in mind -- a leader, an in-fighter, a man with lots of experience in big administrative activities. Jim Webb, the former space administrator, fits the picture. So does Mayor Lindsay, Theodore Kheel, Walter Reuther, David
Packard, Robert McNamara, Sargent Shriver. There are certainly others. And while I know that money by itself won't create good administrators or bring them to large universities, it certainly is far ahead of the next best motivating device we know about.

In conclusion: my thesis is that the problems of higher education are going to multiply during the next 10 to 20 years -- even faster than students -- and the multiplication will be particularly great in the 100 largest cities.

The higher education of tomorrow is likely to bear only a faint resemblance to the higher education we know today. As soon as movers and shapers of educational policy recognize the need for profound changes, I believe they will start planning for them. It would not be a minute too soon if they started now.