In the first section of this paper it is pointed out that the institutional environment of a university dramatically shapes the identity of its school of education. A description is given of the environmental conditions of the University of Rochester (New York) which most influence the character of its education school: (1) the institution is private and financially secure; (2) it has a tradition of "corporate" or top-down governance; (3) it deliberately maintains a small size (for a university) in order to foster interdependence among its units; and (4) it pursues distinctiveness through selective focus rather than breadth of offerings. The "arts and sciences" character of the university has a significant influence on its Graduate School of Education and Human Development (GSEHD). In the second section of this paper, a discussion is presented of the arenas in which this university orientation has the greatest impact on GSEHD: (1) the mission or special emphasis of GSEHD; (2) the character and composition of its faculty; (3) shifts in program emphasis; and (4) shifts in its research and development activities. Appended are a discussion draft on the character and mission of GSEHD and a brief paper responding to the CED/Urban League's "Call to Action," a report urging all major segments of Greater Rochester to improve educational opportunities for city school children. (JD)
SYMPOSIUM

SCHOOLS OF EDUCATION IN RESEARCH UNIVERSITIES

PURSUING PROFESSIONAL SCHOOL RELEVANCE THROUGH AN ARTS AND SCIENCE ORIENTATION

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INTRODUCTION AND OVERVIEW

The primary assumption behind this paper, and I suspect the other papers in this session, is that the institutional environment surrounding a particular school of education dramatically shapes what it does and how it rationalizes what it does. "Schools of Education in Research Universities" is a widely referenced but largely unexamined stereotype which masks fundamental differences among them in missions, structures, operations, and potential as models for all schools of education. In particular, the "host" university is as great a determiner of the "saga" of its school of education as are external developments in the field of education. The context of the "host" combines with developments in the "field", influencing the opportunities for and paths of development.

Four interrelated features of the University of Rochester combine to shape the character of its school of education. The institution is private and financially secure; it has a tradition of "corporate" or top-down governance; it deliberately maintains a small size (for a university) in order to foster interdependence among its units; and it pursues distinctiveness through focus rather than breadth of offerings. These "host factors" are being played out in a time of heightened, perhaps even unprecedented, concern on the part of civic, business, and academic leaders about the performance of educational institutions.

In the first part of this paper are briefly described those "host factors", i.e., the major features of the University of Rochester which have most significantly influenced what its Graduate School of Education and Human Development (GSEHD) is becoming, especially those arising from the "arts and sciences" character of the University. From that base I then move to an examination of the arenas in which those fundamental forces have had greatest impact: the mission or special emphasis of GSEHD, the character and composition of its faculty, shifts in program emphases, and shifts in its research and development activities.

ENVIRONMENTAL CONDITIONS OF THE UNIVERSITY OF ROCHESTER WHICH MOST INFLUENCE THE CHARACTER OF ITS EDUCATION SCHOOL

Private and "Financially Secure".

As an independent or private university, UR enjoys some (relative) discretion over the degrees and programs that it offers, expands, contracts, or does away with. As a "financially secure" institution it is able to evaluate programs as much in terms of their contribution to the distinctiveness of the University as by their contributions to net
revenues. Located among the top dozen higher education institutions in the country in endowment (and perhaps the top in per capita endowment), its financial health fosters (and is fostered by) a sense of stewardship of the endowment. Endowment spending on programs is inherently cautious, and the justifications for spending are portrayed as investments not unlike justifications for financial savings.

"Financial security" combined with independence make it possible for University officials to entertain initiatives which do not necessarily return positive cash flows in the short term. These twin factors make it possible, for example, to consider closing its school of education or programs within the school or severely curtailing enrollments in various programs, even if the effects were to be financially expensive in the short term. As an example, the University's Department of Sociology was recently closed down by a dissatisfied central administration, and a committee of respected academics (including sociologists from the professional schools) has been meeting to draft the intellectual "replacement." It will take years to bring a new program to operational status. In many ways an expensive decision, this action underscores the willingness of university officials to make and enforce actions to improve academic quality despite significant short run financial costs.

Corporate-like Governance

The stereotype of the University's governance structure is one of "top-down". Despite widespread faculty input on many issues through the University's faculty senate and other deliberative bodies, the major directions are set centrally through the Office of the President. Faculty participation is central on matters of peer review, but on other issues it is more to react to and to suggest modifications in, not to set academic policy. Strategic directions, set centrally, are implemented through the deans, directors, and chairs of the schools and departments. Deans serve at the pleasure of the President. The linkages "upward" from the Schools are reinforced through "Trustees Visiting Committees" which involve University Trustees (among others) in direct oversight of the Schools and Colleges of the University.

The major effect of this factor is that the Trustees and central administration the University can and do help to shape the character of the separate academic divisions. The desired character of the University is effectively communicated through the Office of the President to the deans, who with faculty, seek to develop their schools along those desired lines. Efforts to mold a school or department at the University get necessary and almost sufficient impetus from the highest level academic administrator who wishes to see that those changes are made.

The President, relatively new to the campus, has a major impact on those programs he has chosen to change, and Education was one of the first programs on his agenda. Both the President and the Provost are
active participants in redesigning Education though the roles of each differ. After about a year of inquiry, discussion, and negotiation the President set twin goals for the Graduate School of Education and Human Development: one, to achieve national recognition within the profession as one of the top schools of education in the country, and, two, to achieve a reputation for academic excellence across the campus which is equal to the most respected departments and programs at the University. The second goal is at least as important to him as the first.

Small in Size and Interdependent in Organization

The official bulletin of the U of R claims that the University is "among the smallest of the nation's great universities" and that numerous advantages accrue to it and to its students as a consequence. In addition to the relative intimacy of about 7000 students, the University seeks to foster extensive interdepartmental and cross-campus linkages. Joint degree programs and joint faculty appointments are commonplace and are deliberately and formally encouraged.

This tradition has operated over the years to join the fortunes of Education perhaps more closely to the rest of the University, in particular its College of Arts and Sciences, than would be the case at larger and especially public universities. At some time the tradition has made it easier to achieve closer collaboration, and at other times it has retarded trends toward isolation of Education from the rest of the University.

Pursuing Distinctiveness Through Selective Focus

All universities seek distinction, and most universities have some schools and colleges in which some departments and programs happen to be relatively quite strong. The relative strength of various programs at the University of Rochester is less happenstance and more the result of conscious decisions to "build on strength" as a way to enhance the University's national reputation. For example, programs in engineering form a base to support the University's focus in opto-electronic sciences, including laser energetics and optical computing. The School of Nursing pursues distinction through its "integration model" which juxtaposes theory and practice throughout its programs. Even arts and science departments pursue their own laws of comparative advantage. Political Science seeks to build on its strength in positive political theory, and Psychology seeks to build on its orientation as a natural, as opposed to social, science.

The implications for the University's school of education are straightforward: develop a focus and build on it. The challenge lies in reconciling a distinctive, sharp focus with the natural demands (and often inclinations) for breadth in a professional school, especially one characterized often as having more "concentrations," "programs," and "certificates," than faculty members!
The environmental factors we just reviewed are not merely a list of influences operating independently or without regard to other factors. It is collectively and with other factors that they create broad parameters for the development of Education, especially what Education will seek to become, how it will seek this. The private and financially secure nature of the University along with its corporate-like governance structure give administrators and faculty a sense of agency, i.e., a sense that they can, indeed must, reshape parts of the University in fundamental ways. The commitments to selective focus and cross-campus coordination and collaboration largely describe the means for pursuing distinction and the resultant forms.

DEVELOPING A SCHOOL OF EDUCATION WITHIN A STRONG "ARTS AND SCIENCES" ENVIRONMENT

In this section I hope to show how the four environmental factors contribute to the character and shape Education at the University. This in turn may help to explain ways in which GSEHD differs from other schools of education represented at this symposium.

1. Identifying a Focused Mission that Accommodates Necessary Professional Comprehensiveness

"... the university is, as far as possible, determined to do a thing well or not to do it at all."
(Judge, American Graduate Schools of Education p. 17)

"A thing" at the University of Rochester applies as strongly to Education as to the rest of the campus. Beyond the argued assumption that Education is going to remain a thing at the University, the question arises as to what that thing should be. Initial agonies over focus proved frustrating, however, because focus seemed to go against the necessity for a professional school to have a certain level of breadth and comprehensiveness. Do we focus on elementary-secondary education at the expense of higher and adult education? Do we pursue excellence in administrator preparation and research on governance at the expense of teaching and research in curriculum and instruction? Should we achieve distinction through focus only on private educational institutions and leave examination of public ones to others? Alternatively, should we "build on strength" examining education solely through the lenses of a single discipline, e.g., psychology? In these and other early "choice" or zero sum discussions, we always seemed to "gain little and lose a lot" by concentrating. In addition we invariably discovered that many of the most professionally interesting and relevant issues in education were at the very borders which joined the choices.

The special emphasis of Education, which has emerged from two years of discussions, is a reconciliation of focus and breadth. To quote from the most recent issue of the Education Bulletin:
Academic programs in education at the University of Rochester emphasize the study of educational institutions. The term 'institutions' is defined by the interaction of individual learners and the educative processes that take place in these institutions, as well as the social contexts that shape them. This emphasis is reflected in all the degree programs offered by the School, giving them their unique and special character. (p.5)

The emphasis on the study of formal educational institutions as interactions of individual learners, educative processes, and social contexts has provided a basis for reconfiguring groups of faculty, for developing core courses in the curriculum, and other "secondary effects" which will be touched on later. One of the most compelling arguments for this emphasis for many faculty was a sense that we had been graduating competent technical specialists to occupy traditional roles in educational institutions, but we had taken no pains to insure that these educators had sufficient understanding of the historical evolution of and potential developments in the institutions where they would spend their professional lives. With solid grounding in institutional practice, our graduates, regardless of degree or program specialization, could go beyond competency in their chosen role and contribute more directly and immediately to institutional reform in schools, colleges, and universities.

I think the emphasis on institutional study appealed to some of the involved chief academic officers and trustees of the University for a related reason. For some of them the problems and opportunities in the field of education lie not in faulty preparation for roles, but in the current roles, role relationships, and institutional practices in our educational institutions. As institutional (largely university and corporation) leaders themselves, they intuitively value a shift in emphasis from one which has implicitly limited itself to preparation for existing roles to an emphasis which focuses on institutional performance. Indeed, an even more targeted emphasis is emerging which focuses on issues of institutional performance, i.e., not only "how schools work and why", but "how well schools work and why not better." (See Appendix A for a brief rationale.)

Prior to the search for special emphasis, faculty had distributed and grouped themselves largely by program specializations which in turn were largely classifications of job titles (e.g., educational administration, counseling) or discipline-related categories (e.g., psychological development, educational foundations). Program administration was largely operated on a decentralized, departmental basis. Faculty have now redistributed themselves on the basis of personal choice among three areas: Individual Learners, Educatice Processes, and Social Contexts. Each area is described in greater detail in Exhibit One. Typical program and certificate specializations (e.g., secondary teaching of mathematics) draw faculty and courses from across the three areas.
AREAS OF FACULTY AFFILIATION

Individual Learners

The study of the individual learner focuses on the interactive processes involved in knowledge acquisition, particularly social knowledge processes, language, and cognition. Faculty specialize in language development, reading, and writing; social development and social psychological aspects of learning; cognitive processes with special interests in computers and mathematics; child, adolescent, and adult development; cross-cultural studies of cognition; and learning in special populations, including disabled and developmentally disabled persons. The faculty's common interest in the study of development in the context of educational institutions contributes to the development of new theories in psychology as well as education. Current research includes work on parent-child relationships during adolescence, language development in young children, and peer interaction and learning. Such studies provide a coherent portrayal of the social and psychological development of children in schools and families. The faculty collaborate with colleagues in the Department of Psychology, the Department of Pediatrics in Strong Memorial Hospital, and other University units, as well as faculty from other University sites. Research sites include schools and institutions throughout the Rochester Community.

Educative processes

The faculty in this area view educational processes from a critical stance. That is, they emphasize identifying problems and studying approaches to these problems from a variety of perspectives, including educational studies, psychology, sociology, anthropology, philosophy, and knowledge of the subject matter content of academic fields. Their research focuses on the interactions between educator and student; the art and science of educating, including teaching, advising, and counseling; and the relationships between society's knowledge and the curriculum. Scholarship is centered on three interrelated aspects of educational processes:

- the curriculum, i.e., analyzing what is taught and how decisions are made about curriculum. Relevant disciplines brought to bear include history and philosophy, and subject matter such as mathematics and science.
- the educator-learner relationship, or what happens when the educator uses the curriculum to help the learner learn. This study includes examining authority structures, motivation, and interpersonal relationships in schools and colleges.
- the organizational context within which educational processes occur. Studying the conditions in which educator-learner interactions take place includes investigating such topics as the impact of competing priorities and the nature of organizational change. Faculty and students view such issues from the perspectives of sociology, anthropology, and social psychology.

Social context

The faculty of this area are concerned with the interdisciplinary study of educational institutions, including their functioning, structures and processes, policies, and governance as well as the societal forces that bear upon them. Their research includes work on professionalism, organizational behavior in education, educational leadership and management, organizational and public educational finance, decision making, education law and governance, and the history and sociology of education. The faculty employ a range of methodologies from the social sciences. They use both quantitative and qualitative approaches as well as micro- and macro-perspectives in their analyses. Research methodology itself is an interest of faculty in the area, and collaborative efforts are encouraged in faculty and faculty-student inquiry. Scholars in the area seek to apply a broad range of social science theories and methods to educational issues and problems of practice in educational settings.
As a consequence of the focus, programs, courses, and ultimately faculty at the "edges" underwent some changes in direction of energy. As an example, counseling and student personnel programs were redirected from being a "back door" to private psycho-therapeutic practice to focusing on relations between student counseling and institutional performance.

Another tangible manifestation of the focus of GSEHD is to be found in the core courses of the doctoral and masters degree programs. Students in Ph.D. and Ed.D. programs are required to take five core courses, three of which represent fundamental understandings of individual learners, educative processes, and social contexts. The configuration of core courses is different and less extensive for students in masters-degree programs.

The creation of required core courses and additional cross-area distribution requirements for all degree students grew in part out of a strong desire to pursue the possibility of a common knowledge base not only for "teaching," but for "education." Nationwide debate and criticism about the lack of a defineable knowledge base for teaching has translated into a local presumption that there should be some basic, core knowledge which all students across all specializations in Education should know. Although the content of that base will be debated indefinitely, the debate is now underway. (The fact that each specialization had core requirements had only reinforced the "balkanization" of Education, creating the image that it was nothing more than a collection of isolated clusters of students and faculty.)

2. Strengthening Disciplinary Orientation of a Professional School Faculty

"The dominant tactic was to make a foray into the disciplines, to track down a scholar of achieved distinction or of sparkling promise, and to carry him triumphantly through the gates ...." (Judge, op. cit., p. 10)

"The joint appointment is perceived as an accolade conferred by a reigning discipline upon a dependent activity. The migrant doubts whether he can satisfy at one time both the constituency he left and the more vaguely delimited one he has joined." (Judge, op. cit., p.11)

The dilemmas of disciplinary-oriented faculty in schools of education is oft discussed, but seldom in depth. The "dominant tactic", joint appointments, has usually been "courtesy" which translates into "superficial." To say that GSEHD has relied more heavily on joint appointments with disciplinary departments, while true on the surface,
is an understatement and masks as many of the issues in faculty staffing as it reveals. I discuss several of those issues here.

First, the existence of a special emphasis for Education is increasingly influencing all faculty hiring, although it "plays out" differently in joint hirings with other units of the University. The conditions for joint hiring and appointment between Education and any other unit of the University are: the candidate has to be of such caliber such that each unit (i.e., Education and Unit X) would be willing to stand a major share of the budget and grant primary appointment status to the candidate (regardless of which unit becomes the primary tenure or tenure-line home).

Although severely constraining the pool of candidates for joint appointment, the restriction helps reduce the possibility that the candidates work will eventually be seen as of poor quality from a disciplinary perspective or irrelevant from the perspective of Education. The success in finding acceptable candidates through this process depends heavily on joint searching with the departments at the earliest possible stages.

The existence of a special emphasis in Education places further limitations on the pool of faculty candidates, but it provides a useful template for education faculty to evaluate the relevance of a potential colleague from one of the disciplines. Without this template, any academic with a disciplinary background whose work happens to involve education is a candidate.

More fundamentally, the special emphasis in Education has made necessary a deeper discussion into disciplinary subfields, the relative importance of those subfields within many of the disciplines at the University, and how those subfields "map" to the special emphasis in Education. For example, perhaps the most relevant subfield from psychology for Education is a form of hybrid of social and developmental psychology, neither of which are strongly supported on the campus. Discussions with members of the Philosophy Department over a year have lead to a tentative sense that the most productive joint hiring will probably be in the areas of moral and/or social philosophy instead of the philosophy of science.

Sometimes a subfield may be of theoretical interest to faculty members in a disciplinary department, but there is virtually no pool of candidates from which to choose. We are seeking one or more economists who study theories of the firm who include public and non-profit firms in their work and who examine internal workings of the firm as well as treating the firm merely as a "black box." Economists who work in these areas and who are acceptable to the Economics Department as well as Education are scarce.

Because of our desires to increase the number of jointly appointed faculty while at the same time restricting the pool of potential
candidates, we have initiated a different form of search process. The
typical process may be crudely described as: precisely define a position
including rank, seek approval to search and fill, advertise, narrow the
list of candidates, and select, all within one or two years. While we
continue to use this process for many positions, we feel it
unnecessarily reduces the, already small pool of jointly appointed
candidates.

Instead, through each of the three Areas of GSEHD we search for a
much larger number of types of candidates over a multi-year span of time
and without specifying rank, on the assumption that within one year we
will be successful in only a small fraction of the specializations we
seek. We have simply removed some of the bureaucratic restrictions on
positions in order to improve our chances of success in very small
recruiting pools. We can be more opportunistic in our searches, because
we have not had to tie descriptions to authorized billets before
searching. Exhibit Two portrays an ad to recruit faculty which has been
decoupled from specific positions. Incidentally, we have so far assumed
that any single discipline, e.g., history, could be represented in any
of the three areas.

Certainly the strengths of faculty with joint appointments, though
many, are not sufficient to operate a school of education. By pressing
much more heavily into a classical "Arts and Sciences" disciplinary
orientation, we have created the necessity for a second category of
faculty with current experience and expertise in practice, especially to
instruct in the internship, practicum, and field experience courses.
These faculty capabilities which are necessary for personnel preparation
simply are not found in sufficient quantity among jointly appointed
disciplinary faculty. People to staff these functions are being
recruited from "clinical settings" where they are already successfully
performing similar functions. As an example of the overall change, one
professor of secondary English education is, in effect being replaced
with one English professor who is shared with the Department of English
and several English teachers who split their time between GSEHD and area
school districts.

In effect GSEHD is differentiating faculty roles in ways which
vaguely resemble what exists in medical schools and what is being
recommended for elementary-secondary education. Fostered by a desire to
strengthen the "Arts and Sciences" orientation of Education, the
differentiation is likely to improve professional preparation. The
arguments for improvement are less because of increased specialization
and division of labor, and more because of the resulting dialogue
between the English teacher and English professor.

3. Greater Emphasis on Broed Basic Understandings Through Degrees than
on Isolated Competencies Associated with Certificates

11
DEPARTURE FROM POSITION - SPECIFIC FACULTY SEARCHES

Chronicle of Higher Education • March 26, 1986

Graduate School of Education and Human Development
UNIVERSITY OF ROCHESTER

The Graduate School of Education and Human Development of the University of Rochester is searching for new faculty. The School is committed to a mission that emphasizes creation of interdisciplinary knowledge about educational institutions. We seek candidates building on an interaction of basic knowledge and practice in three areas: individual learning, educative processes, and social contexts.

We seek candidates who are interested in work that includes, but is not limited to, the following:

A. In the study of individual learners, we focus on the interactive processes involved in knowledge acquisition, particularly social knowledge processes, language, and cognition. We are particularly interested in candidates who specialize in languages, development, reading, and writing, social development, and social psychological aspects of knowledge acquisition, cognitive processes with special interest in computer and mathematics, and adult development.

B. In the area of educative processes, we emphasize the study of knowledge from social, philosophical and historical perspectives, especially the selection and organization of educational knowledge, and the relation between school and society, particularly in education. This emphasis includes English, foreign languages, mathematics and computer education. A related focus is on the study of the interactions between educators and learners, and the developmental processes that affect learning.

C. In the study of social contexts, we are interested in how social and organizational processes affect, and are affected by, educational institutions. Specific areas of interest include professionals and credentialing, information, technology and educational knowledge, state and federal policy, resource allocation and utilization, and the macro-analysis of educational institutions from structural, institutional, and decision-making perspectives.

Successful candidates will be drawn from a wide range of intellectual backgrounds, especially from such disciplines as history, philosophy, psychology, anthropology, economics, linguistics, political science and sociology, as well as relevant subject-matter disciplines such as English and mathematics. Further, they will share a central professional commitment to bringing these various traditions of knowledge into an interactive study of educational institutions.

Rank and salary open. Applications and nominations may be sent to:
Dr. Philip Wyner, Associate Dean
Graduate School of Education and Human Development
Lattimore 239
Rochester, NY 14627

The University of Rochester is an equal opportunity, affirmative action employer. Women and minorities are encouraged to apply.
"Professors back briskly away from any suggestion that they are in the business of 'training.' They show signs of uneasiness if their courses are linked to concepts of credentialing or licensing. . . . What they, as professors, are concerned to do is to develop skills of thinking and analysis, not perfect a knowledge of budgeting techniques or legislative and procedural niceties." (Judge, op. cit., pp. 11-12)

Degrees and certificates in schools of education are commingled in complex ways. Were our primary orientation to the profession at large and to potential applicants in particular, the emphasis of the School would be (and until recently has been) on the range programs available to prepare for occupational specializations. Those programs were pursued through coursework, etc., which lead (incidentally) to certificates and degrees.

This orientation gave the impression that the School of Education was merely a collection of specialities, many parts but no coherent whole, and there was no integrity to the collection. This criticism is an echo of the one leveled at elementary-secondary schools, i.e., that the sum of the different role definitions do not "add up" to a satisfactory schooling experience for children.

We have shifted the emphasis of our preparation programs from specializations and certificates to common broad understandings associated with degrees, saying in effect "before you are a science teacher or a counselor or an administrator, you are first an educator. There are important things you should know about all of education so that you can better appreciate how your role "fits." See Exhibit Three as an example of our M.A.T. degree.

One of the common characteristics of the degree programs is a formalized tension between useful general ways of organizing knowledge and its application in specialized and concrete settings. Early coursework, including the core courses, provides the former, and internships, papers, and credit bearing workshops provide the later.

4. Fostering Disciplinary Research Which is Likely to Improve Professional Practice in Education

"... a professor is unlikely to be concerned primarily with the only too visible problems of schools and schooling. Why should he be? — especially as he may hold the reasonable conviction that not much (save by way of first-aid interventions) can, in any case, be done by research universities to address those problems. . . . his constituency of first resort continues to comprise scholars
MAT DEGREE: A JOINT EFFORT OF EDUCATION AND ARTS AND SCIENCE

What is the MAT? The Master of Arts in Teaching (MAT) is a new degree program offering a combination of subject matter and pedagogical study. Unlike other teacher education programs, applicants to the MAT program must be admitted by both the Graduate School of Education and Human Development and the department of their proposed teaching specialty. Students take a carefully chosen sequence of subject specialty courses that build a firm foundation of subject area knowledge. Education courses emphasize the theory and practice of teaching and learning. The education sequence also includes field observation and student teaching.

Why an MAT? Why Teaching? Teaching offers a rewarding and challenging career, especially for graduates who have both a love of teaching and students, and a fascination with their subject specialty, be it mathematics, chemistry, history, or English. Unlike other teacher preparation programs, the MAT combines the in-depth study of a particular subject area with the study of teaching and learning in educational institutions. After completing the program, MAT students who have specialized in the study of history, for example, can be sure that they are well prepared to teach an advanced placement class in U.S. history with a confidence that comes from a thorough understanding of their discipline. Just as important as the advanced study of a particular discipline for successful teaching is the study of pedagogy. Students receive a thorough introduction to the theory and practice of teaching, the psychology of learning, and the history and sociology of schooling.

Are there teaching positions for MAT graduates? Most certainly. It is estimated that between now and 1992 school districts will need to hire as many as 1.3 million new teachers. However, as a result of national, state, and local initiatives to improve the quality of teaching and level of student achievement, MAT graduates will have a distinct edge when it comes to obtaining secondary school teaching positions.

In Which Subject Areas is the MAT Offered? The MAT is offered only for teaching at the secondary school level. At the moment the following subjects are offered or are pending approval:

<table>
<thead>
<tr>
<th>History</th>
<th>English</th>
<th>Anthropology*</th>
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</thead>
<tbody>
<tr>
<td>Psychology*</td>
<td>Mathematics</td>
<td>Biology*</td>
</tr>
<tr>
<td>Physics</td>
<td>Chemistry</td>
<td>Political Science</td>
</tr>
<tr>
<td>Earth Science</td>
<td>Foreign Languages*</td>
<td>Economics*</td>
</tr>
</tbody>
</table>

What Does a Typical MAT Program Look Like? This 36 hour program is divided equally between the subject matter department and the Graduate School of Education and Human Development. Each subject matter department has determined a sequence of courses from which students can choose when making up their individual MAT program. The following program would be fairly typical for English:

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Institutions in Contemporary Society*</td>
<td>The Practice of Teaching*</td>
<td>Modern English Grammar</td>
</tr>
<tr>
<td>Shakespeare</td>
<td>Student Teaching</td>
<td>Education elective</td>
</tr>
<tr>
<td>American Literature</td>
<td>History of English Language</td>
<td>Comprehensive Examination</td>
</tr>
<tr>
<td>Seminar (I) in Teaching and Learning of English</td>
<td>Seminar (II) in the Teaching</td>
<td></td>
</tr>
<tr>
<td>English elective</td>
<td>English elective</td>
<td></td>
</tr>
</tbody>
</table>

* GSEHD Core Required Courses

Is There Financial Aid Available? Yes. The Fred and Floy Willmott Foundation Scholarship is available to outstanding MAT candidates. The Booker T. Washington Tuition Scholarship is available for applicants graduating from Tuskegee University, Alabama. For New York State residents the Empire State Challenger Scholarships are available for students intending to teach mathematics, science, or foreign languages in the State. In addition, there are a variety of loan programs available.

I'm From Out of State. Will My Certification Be Acceptable Elsewhere? Yes. Almost thirty states accept New York State certification, including Connecticut, Maine, Maryland, Massachusetts, New Hampshire, Pennsylvania, and Ohio. However, it is always advisable to check directly with the Education Department of the state in which you intend to teach to verify that they accept New York State certification.

How Do I Apply to the MAT Program? If you have not already received the University of Rochester "Graduate Programs" publication and the Graduate School of Education and Human Development "Catalog", contact the office listed below. The "Catalog" contains information about GSEHD programs and faculty, and instructions for completing the application form that is in the "Graduate Program" publication.
within the discipline that formed him and in which he must excel." (Judge, Op cit pp. 10-11)

What should be the long-run posture of a school of education in a research university such as the University of Rochester? A quick first response could well be "discipline-driven research," i.e., research conducted by disciplinarians on subjects directly or indirectly related to performance in educational institutions. However, if this research about education is only for disciplinary journals, then its direct impact on educational practice is muted.

Given GSEHD's commitment to disciplinary-oriented faculty and close ties with faculty in the College of Arts and Sciences, a long-run posture of disciplinary research seems not only logical, but almost inevitable. The challenge at the University is not to have research on education inform the disciplines. That will happen almost naturally. The challenge is, instead, to have that disciplinary research be so professionally relevant that it has an impact on the field of education, especially given GSEHD's claim to interest in institutional performance.

In our attempt to achieve this several clusters of GSEHD faculty are developing projects which would have GSEHD directly involved in institutional redesign efforts at both the elementary-secondary and higher education levels. One of these projects involves carrying out many of the Holmes Group and Carnegie Task Force recommendations at the local level and in partnership with other educational institutions. (Described in Appendix B.) Another involves developing a program in distance teaching/learning which links higher education with professionals in corporations, the health field, and elementary-secondary education. (Described in Exhibit Four.)

These projects share certain characteristics: they are complex, fundamental, long-term design and development activities involving individuals from many different specialties and from different educational institutions. They will be designed to involve large groups of faculty and students in formal ways (as part of teaching responsibilities and as part of programs of study).

Institutional participation and support of these projects does two things. First, it provides settings for sustained multidisciplinary research which is formally incorporated into the instructional programs of GSEHD. Arguably it is an attempt to incorporate certain aspects of "big science" into professional schools characterized by "little science." Second, it deliberately departs from one tacit presumption about schools of education in research universities, i.e., that design and development are not central to their mission in ways in which research and teaching are. We think that an argument can be made for incorporating institutional redesign efforts into our work, especially given GSEHD's emphasis on institutional performance.
DEVELOPMENT PROJECT IN HIGHER EDUCATION: DISTANCE TEACHING

ESTABLISHING DISTANCE TEACHING CAPABILITY AT THE UNIVERSITY OF ROCHESTER
Submitted by Guilbert Hentschke and Henry Miller

SUMMARY

We are proposing to create two television channels for use by academic units of the University of Rochester to broadcast courses to students enrolled in programs of the University who find it advantageous to receive instruction at a remote site within fifty miles of the University. The University would enter into a joint venture relationship with the Rochester Institute of Technology and, together, transmit four channels of programming from R.I.T.'s transmitter. Responsibility for the "technology" portion of this project would rest with the University's Department of Telecommunications, and the responsibility for the "academic programming" of this project would rest with the Graduate School of Education and Human Development. Revenue for the project can be anticipated from three sources: increased tuition revenue, government and foundation grants, and from the Campaign for Rochester.

DISTANCE TEACHING AT THE UNIVERSITY OF ROCHESTER

Distance teaching takes on a limited and focused meaning at the University of Rochester: it is a technological enhancement for instruction within existing programs offered by the University. Each of the schools and colleges of the University would be able to capitalize on the capabilities of distance teaching, incorporating it into their unique instructional strategies, without having separately to incur the costs of research and development. While each unit of the University would determine whether and how it would use distance teaching, all use would have a common characteristic. It would be used for reaching students who were fully matriculated in existing programs of the University. (This would NOT be "sunrise semester" with courses in "basket weaving" for any one interested in tuning in.)

TECHNOLOGICAL CONFIGURATION

Various classrooms and studios would be equipped to draw sufficient programming to supply two channels of programming. That programming would be sent via microwave from River Campus to R.I.T.'s broadcast tower in Henrietta. From there it would be broadcast (along with two channels of programming originating from R.I.T.) up to fifty miles to receiving units (essentially little boxes on TV sets). Programming could be designed for various forms of audience feedback, e.g., data and voice in real and non-real time, but would not need to be formally considered now.

ORGANIZATIONAL STRUCTURE AT THE UNIVERSITY OF ROCHESTER

A joint agreement between the U. of R. and R.I.T. would spell out in some detail the distribution of decision rights and costs to be born by each institution. This would be sketched out first by a few administrators at each place and then "cast" by legal counsel. The operating structure within the University of Rochester would also be specified in some detail. In general it would entail two units of the University – the Department of Telecommunications and the Graduate School of Education and Human Development – coordinating the development of the technological capacity and the programming, respectively. The "users" in this model are the chief academic officers within each of the schools and colleges of the University.

FUNDING

The major categories of costs of the project include facilities, equipment, staff and non-staff operating expenses. The first two tend to occur early and the third and fourth occur largely over time. The major categories of revenue for the project include additional tuition, grants, and contributions to the Campaign for Rochester. Preliminary estimates of the relationships between costs and additional tuition revenue are attached. The major grant opportunity for this project is the Public Telecommunications Facility Program of the Department of Commerce. The major contributors to this project through the Campaign for Rochester include regionally located corporations, and local professionals who would most likely benefit from University of Rochester's distance teaching capability.
CONCLUSION

One set of assumptions lies behind most of the rationale and activity surrounding GSEHD's focused mission, staffing with disciplinary faculty, etc. To wit, there exist within and among the many disciplines which constitute the Arts and Sciences in American higher education several traditions of scholarship which can greatly enhance our ability to understand how and why our educational institutions perform the way they do. Certain lines of research and ways of thinking are more productive than others. Although it is not uniformly clear at present what falls into the "more productive" or "less productive" categories, it is worth the effort to pursue tentative answers.

Second, GSEHD is enhanced by extending itself in two different directions: further into disciplinary debates and further into educational practice. By increasing our knowledge on both fronts and by evaluating each in light of the other, GSEHD increases its ability to produce knowledge which enhances both the disciplines and the practices.
"Transforming Professional Competence into Institutional Performance"

or

"Where Very Good Schools of Education are Missing the Boat"

But First, . . . A Tale of Schools of Education Doing the Old Job Very Well

Imagine for a moment the "perfectly educated and prepared" secondary school English teacher. An extremely energetic, idealistic, and intelligent young woman, she earned a B.A. in English at one of the nation's five star colleges or universities and an M.A.T. in English from the University of Rochester. She has received top grades and performed superbly in all of her internship experiences. With help from the University's placement office she receives many offers for employment. Following our presumptions, the school district which hires her will, in some small way, perform better with her in its classrooms. Most certainly as she gains on the job experience, her ability, education, and ambition will bring forth class upon class of high school students who are excited by what they have learned in English and, more important, what they want to learn in the years ahead.

In fact, it is more likely that in her first year on the job, she will be assigned classes not desired by more senior teachers, find that she can barely cope with classroom control, let alone keep ahead in lesson plans for three different subjects, and find that to spend just 10 minutes grading each of her students' writing assignments in a week she has to put in an extra 25 hours at home. These traumas are nested in her growing realization that extra effort is not, in fact cannot be, rewarded over the years, and the financial rewards even after ten years on the job are not much more than some of her classmates' starting salaries ten years earlier. Further, she can expect virtually no intellectual change in her job in the years to come, except getting "easier" classes to teach as she ages in the job. Within three years, just when she is beginning to master some of the more complex aspects of teaching English to adolescents, she will leave. This is an all too often repeated story.

The ironic post-script to this story is that it takes place in schools where one out of every six students entering high school will not graduate. Although that statistic is an old one, the widespread concern about its implications for the future well-being of all of us is relatively new. The "problem" here is much less the well prepared educator, than the obsolete institutional practices of the workplace. The two issues are joined, of course, because the quality of work and
"sense of accomplishment" at the workplace is as important as financial compensation in attracting into and keeping people like our English teacher in the education profession. The fact remains, however, that we (schools of education), by not addressing the link between our graduates and the institutions in which they are employed, are disproportionately, and unnecessarily ineffectual.

Are the most significant contributions that very good schools of education can make to solving the dropout problem (and others) to be limited to producing educators who are well prepared to assume roles in institutions which are not performing satisfactorily? We think not. To make a major positive impact on the performance of educational institutions we have redefined the notion of professional competence and incorporated strategies for improving institutional performance into the mission of GSEHD.

GSEHD's special emphasis

Schools of education in the nation's research universities have operated under the implicit assumption that solely by preparing educators to perform very competently in traditional roles (as well as by producing scholarship through publications), we are contributing sufficiently to the improved performance of educational institutions which hire our graduates. If this were all that very good schools of education can and should do, then our impact on schools (and colleges and universities) will remain marginal. Why? Because the training of competent educators fails to address the matter of institutional performance — the extent to which the organization and operation of the educational enterprise is itself "competent" to carry out the mandate of which it is a public and collective trust. The focus on individual competencies often helps to obscure the fact that educational institutions are social inventions, and society's concerns about (and hopes for) formal education are cast in terms of institutional performance. The missions of schools of education generally have not addressed the lack of connection between the competence of their graduates and the performance of schools — an important step that cannot be taken until the institution itself is recognized as a humanly created and modifiable reality that is part of the problem.

As a school of education we are persuaded that we should be making more direct contributions to improving not just student or teacher performance, but institutional performance. We are doing this in two interrelated ways: (1) by placing greater emphasis on institutions and institutional practices in our introductory courses and (2) by involving more students and faculty in major ongoing collaborative institutional research and redesign efforts. The first of these, a greater emphasis on institutional practices in introductory courses, is described in detail elsewhere. The overriding perspective of those courses is that educational institutions are social inventions serving socially determined functions, and that "problems" and "successes" in these institutions emanate more from socially determined criteria than from
scientific discovery about the nature of teaching and learning. Yes, we continue to prepare skilled teachers, administrators, counselors, psychologists, and the like, but these graduates are to be much more aware of the performance problems in institutions where they will be working and much more adept at using their position to affect improvements in institutional performance.

They will achieve this through participation in the core courses at the beginning of their programs as well as participation in major projects of the School near the end of their programs. Faculty of the School are undertaking new ongoing efforts to improve educational practices in elementary and secondary schools, colleges, and in graduate degree programs of universities. These projects focus on institutional performance issues such as, restructuring elementary-secondary schools to reduce dropout rates, designing more effective ways to recruit, assess, and place school principals, creating more effective ways to link up continuing professional education between universities and work sites, and identifying performance trends in our nation's graduate arts and science programs.

Graduates of our programs will have experience in professional work which is broader than their educational speciality. They will see that they can and should be making contributions to improving the performance of their educational institutions beyond those of their initial position. Consider as one example, the young English teacher graduating from GSEHD. During her program she will be involved in ongoing efforts to improve the organization and operation of schools through one of the "Professional Development Sites" which faculty in GSEHD are designing for the region. (See "Response by Area Educators to the Urban League's Call to Action" for details). She will be a very good classroom English teacher, but she will also help to improve the performance of schools.
RESPONSE BY AREA EDUCATORS TO THE CED/URBAN LEAGUE CALL TO ACTION

Made possible by a grant to the University of Rochester from the Marie C. and Joseph C. Wilson Foundation

The goal which guides our recommendation is to improve schooling for all the children of our region, especially for those who have traditionally been left behind. The major means for achieving this goal is to bring about improvements at the points where professional educators come in direct contact with children, i.e., largely at the school level.

Draft 4/14/87
Background

Two educational movements, building over the last several years, have lead to this report. The first of these, national in scope, identifies major pathologies in the ways our nation's elementary and secondary schools function, in particular, the ways in which our country's schools fail to educate increasing numbers of our children. Dozens of major reports, products of this movement, describe the wasteful human consequences of not making fundamental improvements in schooling. Recommendations for change have usually been radical, on the assumption that only with major changes can we hope to turn the "rising tide of mediocrity."

The second educational movement, regional in focus, has grown from the CED/Urban League's Call To Action, a report urging all of the major segments of Greater Rochester to help improve educational opportunities for City school children. Since the Call to Action's publication nearly a year ago, many organizations and individuals have initiated programs in response.

The Wilson Project, of which this report is a part, grows out of both the national and local education movements. While calling for fundamental, structural changes, the national reports, specifically those issued by the Carnegie Task Force and the Holmes Group, require individualized interpretation and specifications which are adapted to local conditions. The Wilson Project, described below, is that individualized interpretation for the Rochester area. Along with a companion report from Rochester's business community, the Call to Action urges educators in the region's schools, colleges, and universities to find new, more effective ways to educate our youngsters. The Wilson Project is also the educators' response to the Call to Action.

Over the last eight months nearly one hundred educators from area educational institutions, as well as representatives from civic organizations and the business community, have been involved in developing a design for improving education which, in the considered judgment of the participants, has potential for achieving fundamental, lasting improvements in the way we educate Rochester's youth.

The goal which guides our recommendation is to improve schooling for all the children of our region, especially for those who have traditionally been left behind. The major means for achieving this goal is to bring about improvements at the points where professional educators come in direct
- Involve students in determining the staff person/advisor responsible for him or her, when it appears that the originally established student/advisor relationship is not productive.
- Offer parent education for school-related decision-making. At the same time, educators should increase outreach efforts to the broader community concerning the nature of education and the decision-making process.
- Expand school-based counseling and counseling-focused networks.
- Institutionalize programs such as case management, home-based guidance, students as peer mentors.

2. Move to the building level more decisions about how to achieve the goals of schooling. The individual school community must have greater autonomy, responsibility, and accountability for improving its school. At the same time, it is understood that building-level autonomy requires effective leadership.

Possible associated actions:
- Provide a clear statement of general goals for students at four transitional points: primary, intermediate, middle school/junior high, and high school graduation and then encourage diversity in the means to achieve these goals.
- Encourage each school community to find its own way of involving those who have not traditionally been involved in education, offering varying roles and levels of involvement.
- Encourage community resources (churches, social service agencies, etc.) to work more closely with schools for the support of students both in and out of schools.
- Provide members of each school community with ongoing training in organizational development, group dynamics, and interpersonal communication skills.
- Allow each school community to determine the kind of resources needed in its building (for example: higher education faculty, parent workers, business specialists, etc.).
- Allow each school community to determine who will fill vacancies which occur in its building.
- Allow each school community to decide how funds are spent in its building.
- Give individual schools the choice of adopting district accountability procedures, or of adopting their own (in cooperation with district administrators).
8. Increase the possibilities for movement among various educational roles for educators within the district. In order to inspire continued professional commitment, contribution, and growth, educators need options for varied roles during their professional career.

Possible associated actions:
- Provide for the development of new roles for teacher as specialists in a variety of educational tasks, such as media use, instructional use of computers, community liaison, parent educator, inservice/organizational development, etc.
- Recognize that out-of-classroom roles do not necessarily represent the first step of a career trajectory which assumes that they never return to the classroom.
- Involve all district educators with the direct instructional experiences of students. The nature of those building-level assignments are determined collaboratively with the individual buildings.
- Establish a system of different status and/or remuneration for different responsibilities.
- Design staff training and development programs to accompany new responsibilities.

6. Overhaul educator preparation programs so that graduates are more competent to educate students who are currently underserved by traditional schooling. At the same time, ensure that schools, colleges, and universities do not function in isolation from one another.

Possible associated actions:
- Redesign responsibilities in colleges and universities so that district-based educators assume roles in colleges and universities (instruction, research, curriculum development, etc.).
- Create new roles in the schools for higher education faculty, including increased involvement of non-education-faculty in the life of schools.
- Offer new types of learning experiences in higher education, particularly those which are relevant to the world of schools, and which move away from classroom teacher as passive receiver of knowledge.
- Develop closer articulation among preparation programs for teachers of all specialties, counselors, and administrators.
- Consider changes in the traditional location of educators' and students' worksites.
10. Analyze policy from the standpoint of its actual impact on underserved students. Governmental regulation, implicit and contractual agreements, and the mores of a school or district often affect decisions and work against the effective education of children.

Possible associated actions:
- Identify laws, policy, and procedures both within and outside the school building and district which work against the effective education of children.
- Develop and implement plans (such as seeking waivers, variances) which address these constraints.

11. Increase the responsibility of all educators to meet the academic/intellectual needs of each student. High rates of failure must be seen as unacceptable. Success for each student must be recognized as the goal of each teaching-learning interaction.

Possible associated actions:
- Expand purposeful and productive interaction between teachers and supporting professional personnel such as librarians, counselors, deans, psychologists, social workers, and attendance officers.
- Educators employ a variety of teaching styles to meet the variety of student learning styles.
- Develop alternative curricula which reflect a variety of learning and teaching styles, and which show relevance and meaning to student lives.

12. Strengthen district-wide curriculum policy which nurtures thinking and decision-making skills of students. The fundamental "basic" skill required for participation in our complex society is the ability to make sound decisions.

Possible associated actions:
- Students' educational experiences include decision-making opportunities both in school and in the larger community
- Encourage educators to be models for questioning, critical thinking and decision-making.
- Develop and employ a wide range of evaluation approaches and techniques which include opportunities for demonstrating problem-solving abilities. Coach students to improve the likelihood that they will be successful in these activities.

Each of the twelve Core Components requires different forms of participation from area educators, but all require some collaboration among educators employed in elementary-secondary schools and those employed in colleges and universities. Indeed, it requires much more intimate and sustained collaboration than has historically existed. A
Rochester Education Council

Supporting the development of the initial sites is a joint responsibility of the following organizations: Association of School Administrators of Rochester, City School District of Rochester, Community Roundtable, Industrial Management Council, Nazareth College of Rochester, New York State Education Department, the Rochester Teachers Association, State University of New York College at Brockport, State University of New York College at Geneseo, and the University of Rochester.

Each of these institutions or organizations will be invited to endorse the principles described in this document and to join in forming the "Rochester Education Council." Membership on the Council requires a formal commitment from the governing body of each institution or organization. The chief executive officer will select an official representative to the Council. Responsibility for coordinating the work of the Council with the parent body belongs to the representative. The Council would assume responsibility for selecting the initial Professional Development Sites from those nominated by the District, and for working with other educators to design and implement changes. At a later stage the Council will help to expand the number of Professional Development Sites.

A major responsibility of the Council and of the Professional Development Sites themselves is to ensure that no Professional Development Site becomes permanently established and that no site continuously operates with substantially greater resources than the other schools in its district.

"To the reader not familiar with education in Rochester, it may not be clear why two of those organizations (Industrial Management Council and Community Roundtable) would be included in a "response by educators," since their names do not explicitly reflect their role and interest in education. In fact, these two organizations, representing corporate and civic leadership in the Rochester region, have and continue to be a major force for improving educational opportunities for our youth. They have participated in the development of this document and would continue their participation through the Rochester Education Council."
The following people took an active part in the preparation of this document:

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