

OSI-Discovery / Ohio Resource Center

Request for Proposals

University Centers of Excellence for Mathematics and Science Teacher Education

Introduction

There is general agreement across Ohio about the importance of mathematics and science as keys to the economic and social well being of the state and its citizens. There is likewise strong sentiment that future prospects of economic vitality and personal welfare in Ohio hinge on bringing about improvement in these critical areas of K-16 schooling. Various means have been instituted over recent years to effect or leverage improvements locally, regionally, and statewide. The State has made significant investments to build infrastructure support for improvement through *OSI-Discovery*, the Ohio Learning Network, OhioLINK, SchoolNet, the Ohio Supercomputer Center, Eisenhower professional development program, TIMSS regional consortia, Early Mathematics Placement Testing Program, Regional Professional Development Centers, and Title II mathematics and science curriculum and leadership development programs.

A significant higher education component, *Project SUSTAIN*, was added to state systemic improvement efforts in 1995 as the original state systemic initiative, *Discovery*, was continued as a solely state-funded project (*OSI-Discovery*). The aim of *SUSTAIN* has been to provide grant support to Ohio teacher education institutions in mathematics and science to improve pre-service programs, strengthen coordination and communication among college faculties, establish ongoing collaboration among higher education institutions, and to enhance student achievement through school partnerships. In 1999, the Ohio General Assembly established the Ohio Resource Center for Mathematics, Science and Reading (ORC) to disseminate information on effective (**best**) educational practices in mathematics, science, and reading to Ohio education users at primary, secondary, and higher education levels and for utilizing the research capabilities of Ohio's higher education institutions to improve the data and knowledge bases for informing policy decisions. This RFP is seeking to extend the efforts of *SUSTAIN* through partnering with ORC to identify and support university centers of excellence for mathematics and science teacher education.

Rationale

Though ongoing efforts have produced measurable improvement in teacher preparation, teacher professional growth, and in student achievement, several critical needs still persist. *OSI-Discovery* data¹ indicate that among Ohio's state-supported universities, roughly 200 mathematics and 240 science teachers are being prepared for the state's 1417 middle and secondary schools. These projected graduation rates (estimated as 60 percent of the total mathematics and science teachers prepared each year) fall far below the numbers required to meet mathematics and science staffing needs arising from anticipated retirements and teacher turnover in these critical fields.

Complicating the situation further are the effects of retirement and attrition rates among Ohio's mathematics and science education professors.² Among 13 state-supported universities, there are 33 mathematics educators employed today, six fewer than were employed five years ago. In science education, 37 science educators are employed in these institutions, three fewer than five years ago. The attrition rate for this period was 11 percent overall with a 15 percent rate in mathematics education and a 7.5 percent rate in science education. This workforce is too small to provide an adequate supply of mathematics and science teachers for Ohio and too small to meet professional development needs of school districts.

¹ Wagner, S., Meiring, S. and Costner, K. (2000) Milestones 2000. Columbus: *Project SUSTAIN* (The Ohio State University).

² Ibid.

Mathematics and science continue to rank as the lowest performance areas on state proficiency tests. Academic performances in both subjects are uneven across the state, with enormous variations among socio-economic groups. This situation is particularly a crisis in urban and other low-income population centers. Twenty-seven percent of entering first-year students at Ohio universities and colleges are not fully prepared to begin work required in freshman level courses, requiring remedial pre-college coursework in one or more mathematics courses. This trend has remained relatively unchanged for fifteen years.³ At the same time, curriculum standards for students are increasingly becoming more rigorous.

Centers of Excellence

To encourage Ohio's higher education system to address these needs, the Ohio Board of Regents through OSI-Discovery and in cooperation with the Ohio Resource Center for Mathematics, Science, and Reading is seeking proposals from state and private colleges and universities in Ohio to identify and extend excellence in university mathematics and science pre-service and in-service teacher education programs as defined below. The State has a vital interest in expanding the capacity of mathematics and science teacher education preparation and professional development support of K-12 teachers by building upon programs of documented excellence. Institutions (individual or collaboratives) designated as Centers of Excellence will be expected to enhance their areas of strength (e.g., middle grade mathematics; early adolescent mathematics and science) and/or to extend their strength in one program area/level to another (e.g., early childhood science to middle and early adolescent science; research in early adolescent science teacher preparation to research in middle grades science teacher preparation).

A primary requirement of each proposal is collaboration with the Ohio Resource Center and the involvement of K-12 school districts and schools. Each Center of Excellence will be expected to act as a pilot university in providing clinical training support to school districts and teachers for best practices identified by ORC and/or the Center of Excellence. In addition, partnerships with 2-and 4-year colleges and/or post-baccalaureate graduate institutions are encouraged. Grant awards in the range \$200,000 - \$300,000 will be made annually for four years (contingent on the appropriation of funds by the General Assembly) to one or two universities/collaboratives proposing models that build upon existing mathematics and science teacher preparation excellence and that contribute to state goals to:

1. Increase the **recruitment of pre-service and retention of in-service teachers** of mathematics and science and increase the **number of faculty** positions dedicated to mathematics and science teacher education;
2. Increase the capacity of urban and other at-risk districts to **enhance student achievement in mathematics and science** through partnerships among universities, schools and the Ohio Resource Center;
3. **Improve** pre-service and in-service teacher preparation programs in mathematics and science by:
 - a. Implementing standards-based approaches to teaching mathematics and science
 - b. Improving links with in-service professional development
 - c. Increasing the integration of content and pedagogy in teacher preparation
 - d. Strengthening clinical learning opportunities for pre-service and in-service teachers
 - e. Incorporating evidence-based "best practices" in pre-service and in-service teacher preparation programs
4. Strengthen **coordination/communication among college faculties (Teacher Education, Arts & Sciences) and with school districts and schools** to improve the teaching and learning of mathematics and science throughout pre-service and in-service teacher preparation programs;
5. Establish ongoing **collaboration among institutions** of higher education, school districts, professional development centers, and the Ohio Resource Center to improve teaching and learning across the state of Ohio.

³ *Improving College Preparation in Ohio: A Total System Approach*, Ohio Board of Regents and Ohio Department of Education, 1997.

To be competitive, University Center of Excellence in Mathematics and/or Science Teacher Education Proposals *must* target all five goals in significant ways. Proposals *must* further document the demonstrated excellence and capacity of proposed Center participant partners as evidenced by strong external evaluations (e.g., NCATE, Ohio Department of Education, Ohio Board of Regents, *SUSTAIN*) and indicate how the proposed Center will build upon or extend the areas of excellence, including introduction of innovations into teacher education. Lastly, proposals *must* explain how they will collaborate with the Ohio Resource Center to support the incorporation of research-validated best practices into teacher education and professional development support of in-service teachers; and *must* agree that relevant products developed in support of Center of Excellence activities may be disseminated through the Ohio Resource Center for purposes of strengthening the target goals throughout the state.

Proposals *may* address one or both teacher preparation areas of mathematics or science and *may* focus on a particular licensure range (e.g., middle childhood science) for the proposed funded activities of the Center. Proposals *may* identify additional sub-goals to those listed above, such as promotion of equity in mathematics or science education or development of models of educational technology utilization. Proposals *may* develop a rationale for significant levels of research associated with one or more Center goals, such as cognitive research into how prospective teachers learn or research related to program redesign at higher education or K-12 levels.

Competitive proposals *will* incorporate recommended key features of the learning of mathematics and science in K-16+ such as: standards-based approaches to curriculum, instruction, and assessment; integration of mathematics and science content and pedagogy; inquiry-rich investigations in the classroom/laboratory; models of cooperative learning in classes; innovative models for clinical support of pre-service and in-service teachers; and sustained and intense involvement in student learning experiences, including academic year follow-through and support networks for participants. Proposals *will* also demonstrate collaboration among the institutional partners participating in the Center, among faculty and departments within Center institutions, and through Center team functions such as team planning and teaching of courses and programs.

Lastly, the host site and fiscal agent for the Center *will* be a doctorate granting institution in an appropriate field. The proposed host site institution *will* document continuing high university/college fiscal support and central administration oversight for teacher preparation programs and the operation of the Center with some promise for the continued operation of the Center beyond the initial four-year funding. The principal investigators *will* describe a strong external evaluation plan that reports formative and summative evaluation periodically to the Ohio Board of Regents and Ohio Resource Center.

Proposal Preparation

1. **Cover Sheet.** All proposals must include the attached cover sheet signed by the principal investigator(s), department chair(s), dean(s), provost(s), and superintendent(s).
2. **Evidence of Program Excellence Forms and Abstract.** All proposals must include institutional data to support the case for program excellence and a one-page abstract. Optional ideas are outlined in the Appendix to suggest appropriate institutional evidence making a case for the excellence of proposed teacher education programs, level of funding for them, the university's commitments to them, and the carefulness of the central administration's oversight of teacher education. The proposal title and abstract will be used to select and orient reviewers of proposals. The abstract should make a brief case for excellence, the objectives and expected outcomes including deliverables or products, activities to accomplish goals, and collaborations with other institutions.
3. **Narrative.** A narrative not exceeding **15 double-spaced pages** printed on a single side (not including cover page, abstract, vitae, current project, budget explanation, appended institutional data, and bibliography) should address the *needs* of the targeted populations, the *rationale* for the proposed project, the *design* of the project, the *curricular materials* to be used or developed, the *partner institutions* to be involved in the project, the *primary personnel* responsible for the project, a *time line* of activities, a *project research design* (if applicable), and the *evaluation plan*. Following are specific elements that should be addressed.

- a) An **introduction** (optional) highlighting planned activities, organizational structure including major participants, and a schedule of activities;
- b) **Goals and objectives** for enhancing existing excellence, for establishing opportunities for pre-service and in-service teachers, and for utilizing and following-up on Ohio Resource Center “best practices” in clinical and critique settings. The narrative should describe how existing program aspects of excellence will be enhanced and/or expanded, including strategies and activities for achieving enhancements/expansions and including innovations in educational practice planned for the Center. Describe the organizational structure of enhancement activities or projects for teacher education and collaboration with the Ohio Resource Center, other colleges and universities, schools and school districts. Describe any barriers to collaboration and your plans to overcome them. The general scope of a four-year plan of Center projected activities should be provided that is specific and detailed for the first two years of funding.
- c) **Case for Excellence** section should explain appended institutional data and materials. The section should describe program features, clearly underscoring features that are recognized as having great strength or high quality. Include evidence of past successes and such evidence that may come from current literature or pilot programs. Appropriate literature on teacher education should be cited where it supports the case for excellence. Where not obvious in the appended institutional information, the narrative should provide a description of the university’s past support for teacher education. Explain and justify the university’s level of funding for teacher education. Describe as well the university’s oversight procedures and provide a justification for the frequency of oversight reviews for teacher education. Beyond funding itself, describe other university commitments to teacher education.
- d) **Research on Teacher Preparation** section (optional) should describe the research focus of the proposed Center and explain how the proposed research will enhance other teacher preparation excellence activities of the Center. A significant research amount (up to 35% of the project budget) will be justified ONLY if the substantive nature of the Center of Excellence deals with research. The scope of the proposed research should be appropriate to the funding available to the grant unless those funds are supplemented from other sources. The intent of this program is to stimulate a *balance* of excellence in teacher preparation and professionalization rather than to provide sole support for research.
- e) The **Collaborative Activities** section should describe plans to communicate the impact of efforts to enhance the teacher education program and the effects of clinical experiences on pre-service and inservice teachers’ professional practices. It should detail activities that establish ongoing collaboration among higher education institutions, school districts, professional development centers and the Ohio Resource Center, including incorporation of best practices within pre-service teacher education, piloting of best practice support to selected school districts, and the nature of Center of Excellence products worthy of dissemination through the Ohio Resource Center.
- f) **Organization, Management, and Institutional Commitment** section should describe the organizational structure of the proposed Center of Excellence, its administration and management plan both as a Center and within the host site institution, and the institutional commitments being made by the host institution for support of the Center. The latter should describe matching resources from the university and its partners of \$100,000 or more in fiscal resources, that might include new tenure track faculty. A minimum \$100,000 match is required for each year of the Center's funding under this grant, including a cash match of \$50,000 in Year 1, \$75,000 in Year 2, and \$100,000 each in Years 3 and 4. The narrative should also indicate how Center enhancements will be sustained at the conclusion of Ohio Board of Regents and Ohio Resource Center support.
- g) The **Experiences and Capabilities of Principal Investigator(s) and Key Personnel** section should describe the experiences and capabilities of the principal investigator and key personnel carrying out proposed enhancements and partnerships. The qualifications (including experience with *Discovery/OSI-Discovery* and related activities in grades K–12 or in higher education) and responsibilities of the primary personnel should be defined adequately in either narrative or tabular form. In addition, vitae (preferably 1-

2 pages) and complete contact information for the project director and principal investigators should be appended to the proposal.

- h) The **Evaluation** section should describe the criteria and procedures that will be used to evaluate the quality and impact of teacher education enhancements, including the number of new faculty lines, new teachers trained, and in-service teachers retained; and clinical experiences for pre-service and in-service teachers. Measures should be identified for determining how specific deliverables described in the Goals and Objectives will be assessed. Similarly, criteria and procedures for evaluating the quality and impact of collaboration with the Ohio Resource Center and collaborating institutions should be described. The breadth of the evaluation plan should be appropriate to the size and complexity of the enhancements and collaborations proposed. Evaluation of the Center should be the function of an external, contracted evaluator.
- i) **Allowable Expenses** include limited personnel time, supplies, travel allowance, document production, mailing costs, and equipment. Equipment critically essential for enhancement of teacher preparation or establishing links to ORC must be justified in this section. A nominal level of support for instrument identification or development, data entry and management, and analysis can be negotiated according to need. The university, and, if applicable, the school district or other collaborating institutions must contribute a dollar match for equipment over and above the \$100,000 University grant match.

4. Current and Pending Projects

Responsibilities of key personnel to other projects should be indicated. List the title of the project, period of the project, percent of time involvement, and (if funded) the total award and funding agency. If the project is related to the proposed Center of Excellence project, indicate clearly which activities are supported by each project.

5. Budget Guidelines, Justification, and Cost Sharing

A budget for each year, as well as a cumulative budget for the duration of the project, must be provided (template attached). Expenditures are subject to the state guidelines indicated below. Each budget item must be explained and cost sharing should be indicated.

- Projects involving coursework for credit at Ohio colleges and universities may pay either tuition or instructors' salaries, but not both.
- Teacher stipends for attending institutes are limited to \$100 per day and cannot be paid for days on which participants receive regular pay or teacher substitutes are charged to the grant.
- Teacher substitutes may be paid at the local rate up to a maximum of \$60 per day. Additional costs for substitutes must be paid from other sources. State funds cannot be used to pay for substitutes in church-affiliated or parochial schools.
- Equipment costs (not essential to program activities) will generally not be funded.
- Consultant fees are limited to \$300 per day plus expenses and should not exceed usual salary levels. Salary payments for faculty overload are not permitted.
- Indirect costs are limited to 8% of total direct costs.

Criteria for Assessing Proposed Activities

1. Increasing recruitment of pre-service and retention of in-service teachers and increasing the number of faculty

Proposals must present a case for the **effects the Center of Excellence will have upon improving the human resource capacity** to support mathematics and/or science education, including but not limited to recruitment of pre-service teachers, retention of in-service teachers, and increasing the number of higher education faculty

engaged in teacher preparation programs. Programs of excellence should be able to document, as part of their case for excellence, significant numbers of teachers currently being prepared and to describe how these numbers will increase through Center activities.

2. Improving mathematics and/or science education, especially for students in underrepresented groups

Programs must have a **demonstrated and continuing record of improving student learning, achievement, and dispositions towards mathematics and/or science for all students**, but especially those students traditionally under-served and underrepresented in mathematics and science, such as students in urban and other at-risk districts. Programs should have a productive record of improving teaching and learning at the building or district level, not just for individual teachers. Proposals should describe how Center activities will support partnerships among universities, schools, and the Ohio Resource Center to increase the capacity for urban and other at-risk districts to make measurable improvements in student learning, achievement, and/or dispositions toward mathematics and/or science.

3. Improving pre-service teacher preparation programs in mathematics and/or science

Proposals must demonstrate **measurable improvements in pre-service teacher education programs over the past five years**. Improvements should reflect, but are not limited to, key features that characterize the *standards-based* models for pre-service and in-service teacher preparation. Examples of measurable outcomes include the following:

- Developing standards-based courses/programs/experiences for pre-service and inservice teacher preparation
- Improving existing courses/programs by incorporating key features of *national and state standards*
- Linking pre-service teacher education with in-service professional development to encourage parallel change at both the school and university level
- Establishing outreach and linkages to the Ohio Resource Center and to school districts for the purpose of supporting research-based best practices through clinical opportunities for professional growth and development
- Developing new model(s) for teacher preparation that draw upon unique resources and that alter the structure of teaching and learning to enhance productivity and effectiveness
- Following up mathematics and/or science graduates to assess program strengths and weaknesses
- Consistency of programming (i.e., thematic coherence and theoretical consistency)
- Establishing threshold levels of mathematics and science knowledge necessary for skilled teaching

4. Strengthening collaboration between arts & sciences and education faculty and K-12 faculty

Proposals must provide **evidence of institutionalized efforts to strengthen coordination and communication among all the faculties involved in teacher preparation including K-12 faculty**. Evidence must indicate that collaboration is *active and ongoing* and could include such initiatives as cooperative development of innovative curriculum, team teaching of courses, or joint supervision of teaching interns. Also, proposals must provide evidence that collaboration is encouraged and supported by university- and district-level leadership.

5. Functional collaboratives among universities, school districts, and the Ohio Resource Center

Projects must establish **partnerships involving a university and one or more colleges (at least a 2-year college and possibly another 4-year+ institution), an urban or other at-risk school district, and the Ohio Resource Center.** Partnerships are encouraged to develop clinical programs utilizing ORC products such as virtual “best practice” professional development materials, and to initiate innovative models of pre-service and in-service teacher preparation to be disseminated through ORC. Desirable outcomes include enhancing the professional development of college and university faculty and K-12 faculty, promoting linkages between pre-service and in-service professional programs, exchange of services between school and university campuses, and providing high quality, first-hand, follow-up experiences to ORC on-line best practices for K-16+ faculty. The strength of these partnerships is an important attribute of excellent teacher preparation programs.

6. Prospects for the Center of Excellence to continue operation after an initial four years of funding support

The State’s interest in issuing this RFP is to **raise the capacity of university (collaborative) excellence in mathematics and science teacher education preparation and professional development support of K-12 teachers to the status of a self-sustaining Center.** The annual grant support of \$200,000 - \$300,000 coupled with a minimum \$100,000 university match (cash match of \$50,000 in Year 1, \$75,000 in Year 2, and \$100,000 each in Years 3 and 4) is intended to provide the stimulus and resources to raise programs of excellence to a level of prominence and activity that will enable them to continue as a recognized center after the initial four years of support. Proposals should demonstrate a strong commitment from central administration and participating faculty for developing a Center that has the status and valuing of its services to attract continued funding into the future.

Criteria for External Evaluation of Proposals

The following weighted criteria will be used by an external panel of evaluators, chosen by the Ohio Board of Regents, to review submitted proposals. These criteria are not intended to be discretely applied in the review of proposals, since some overlap among categories is likely to occur. Their primary purpose is to convey to proposal developers and reviewers the relative weight to assign to various required features for Centers described by this RFP.

- **(30 points) *Case for Being a Center of Excellence***
Points will be assigned according to how well the proposal presents a rationale in the narrative and supporting documentation (see Appendix) for the potential of the proposed collaboration of partnering institutions to be identified and supported as an Ohio Center of Excellence for mathematics and/or science education. Reviewers will consider the excellence of identified current programs in teacher education and the potential for their growth through the four-year funding period, as well as institutional commitment for the continued operation of the proposed Center beyond this funding support. Reviewers will also consider how this proposed Center will add to the capacity and infrastructure of Ohio to support mathematics and science teacher education K-16+.
- **(30 points) *Activities and Programs Proposed for the Center of Excellence***
The proposal should focus upon a particular licensure range or ranges in teacher education and may opt to address mathematics education, science education, or both as part of the Center. The proposal will be evaluated in how well proposed Center activities and programs improve the depth and quality of the targeted focus of the Center and, within this focus, as to how well activities and programs contribute toward the *breadth* of the five goals on page 2. The proposed activities should enhance already existing excellence and feature elements that extend and enhance existing strengths as well as add others. Proposals must assure a coordinated approach to pre-service mathematics and/or science teacher preparation, beginning with recruitment and culminating with the initial years of teaching that identifies a plan to increase the recruitment of pre-service and/or retention of in-service teachers of mathematics and science and to increase the number of faculty positions dedicated to mathematics and/or science teacher education. For in-service teacher preparation, proposals must assure adherence to standards-based teaching, curriculum, and assessment and to evidence-based best practices. Proposed programs must be clearly and adequately described, including the roles and collaborative activities of partnering institutions.

- **(20 points)** *Quality of Proposed Collaboration with ORC*
 Proposals must demonstrate coherence with the mission of the Ohio Resource Center and incorporate design features that link clinical experiences for pre-service and in-service teachers with ORC's best practice website. These points will be awarded in terms of how well the proposed Center activities and programs support the incorporation of best practices into teacher education and professional development support of in-service teachers. The Center will be expected to collaborate with the Ohio Resource Center by identifying and incorporating research-validated best practices into teacher education programs, by serving as pilot higher education institutions to study how best practices can be disseminated to and supported in selected K-12 pilot districts, and by studying how relevant products developed in support of Center of Excellence activities may be disseminated through the Ohio Resource Center for purposes of strengthening mathematics and science education throughout the state.
- **(10 points)** *Organization, Management Plan, Budget, and Institutional Commitments*
 The proposal should describe the organizational structure of the proposed Center of Excellence, including its administration, budget, and management plan as a Center and within the host site institution. Evidence should indicate strong institutional support and central administration commitments made by the host institution for support of the Center. These must include, but are not limited to, matching resources of \$100,000 or more (including a cash match of \$50,000 in Year 1, \$75,000 in Year 2, and \$100,000 each in Years 3 and 4) in fiscal resources from the university and its partners, that might include new tenure track faculty. Evidence should also include a commitment by central administration to support the continuation of the Center beyond the four-year grant period.
- **(10 points)** *Evaluation Plan*
 Points will be awarded for the coherence and clarity of the evaluation plan design. Evaluations must be conducted by an external contractor with periodic data and reports submitted to the Ohio Resource Center. The design should include both quantitative and qualitative criteria and procedures to evaluate the quality and impact of teacher education enhancements, including the number of new faculty lines, new teachers trained, in-service teachers retained, and clinical experiences for pre-service and in-service teachers. Measures should be identified for determining how specific deliverables will be assessed and for evaluating the quality and impact of collaboration with the Ohio Resource Center and collaborating institutions. The breadth of the evaluation plan should be appropriate to the size and complexity of the enhancements and collaborations proposed.

Submission of Proposals

Proposals will be accepted hand-delivered by 5 P.M. or with postmark deadlines of January 31, 2002. The total support available for multiple awards is \$500,000. Proposals will be reviewed by a panel appointed by the Ohio Board of Regents and the Ohio Resource Center. The design of the project will be evaluated using the criteria described in the previous section. Proposals deemed worthy of funding will be awarded funds contingent on responses to questions and conditions posed by the review panel. Administration of the grants to Centers of Excellence will be the responsibility of the Ohio Resource Center.

Proposals should be sent by mail to:

Dr. Jonathan Tafel, Vice Chancellor
The Ohio Board of Regents
30 East Broad Street, 36th Floor
Columbus, OH 43215-3414
jtafel@regents.state.oh.us

Answers to questions or advice on ideas can be obtained by calling Dr. Victor Rentel at (614) 728-3061 (vrentel@regents.state.oh.us) or Dr. Margaret Kasten at (614) 247-6342 (pkasten@enc.org). Copies of the RFP are posted on the *OSI-Discovery* page of the Ohio Board of Regents web site <www.regents.state.oh.us/osi/> or on the Ohio Resource Center web site <www.ohiorc.org>.

PROPOSAL COVER PAGE

Please check appropriate category

Centers of Excellence in Mathematics/Science Teacher Education

Mathematics Proposal _____
Science Proposal _____
Combination (Math & Science) _____

1. FISCAL UNIVERSITY & PROJECT DIRECTOR(S)

University _____
Project Director _____ Phone _____
Department _____ E-mail _____
Project Director _____ Phone _____
Department _____ E-mail _____

2. PROJECT

Title _____
Estimated Number of Faculty and/or Teacher Participants _____ Grade Levels _____
Main Activities _____

3. BUDGET

Requested Funds \$ _____ Cost Sharing \$ _____ Total Budget \$ _____
Cost per Faculty and/or Teacher Participant _____

4. COLLABORATING PARTNERS (IHES, SCHOOL DISTRICTS, RPDCS, OTHER AGENCIES)

(Letters of agreement must be appended to the proposal.)

5. CERTIFICATION AND ENDORSEMENT OF COLLABORATING PARTNERS

Applicants certify that to the best of their knowledge and belief, data in this proposal are true and correct. Institutions endorse the goals of the project and agree to participate and support its costs as outlined in the proposal.

Fiscal Institution _____

Project Director/PI _____ Title _____

Signature _____ Date _____

Project Director/PI _____ Title _____

Signature _____ Date _____

Provost _____

Signature _____ Date _____

5. CERTIFICATION AND ENDORSEMENT OF COLLABORATING PARTNERS continued

Fiscal Institution

Dean _____

Signature _____ Date _____

Department Chair _____ Title _____

Signature _____ Date _____

Partnering Institutions

Institution _____ Institutional Rep _____

Signature _____ Date _____

Institution _____ Institutional Rep _____

Signature _____ Date _____

Institution _____ Institutional Rep _____

Signature _____ Date _____

Institution _____ Institutional Rep _____

Signature _____ Date _____

Institution _____ Institutional Rep _____

Signature _____ Date _____

Institution _____ Institutional Rep _____

Signature _____ Date _____

Institution _____ Institutional Rep _____

Signature _____ Date _____

Institution _____ Institutional Rep _____

Signature _____ Date _____

Institution _____ Institutional Rep _____

Signature _____ Date _____

PROPOSAL BUDGET SUMMARY

Ohio Board of Regents/Ohio Resource Center

INSTITUTION				
PROJECT TITLE				
PROJECT DIRECTOR(S)				
1. PERSONNEL COSTS (List separately with names & titles)	OBR/ORC FUNDED MONTHS		REQUESTED OBR/ORC FUNDS	OTHER FUNDS
A1. Salaries, Key Personnel (Faculty, Admin)	ACAD	SUMR		
A2. Fringe Benefits (at approved rates) (%)				
B1. Salaries, Support Personnel (Clerical, Assistants, Grad & U.G.)				
B2. Fringe Benefits (at approved rates) (%)				
TOTAL PERSONNEL COSTS (Add Salaries & Fringe Benefits)				
2. CONTRACTUAL (Consultants, Other Subcontracts - Provide Details)				
A.				
B.				
C.				
TOTAL CONTRACTUAL COSTS				
3. PARTICIPANT COSTS (Provide Details in Budget Explanation)				
A. Tuition & Fees				
B. Room & Board				
C. Travel				
D. Teacher Stipends (rate of \$100 per 5-day week)				
E. Teacher Substitutes (paid at local rate - maximum of \$60/day)				
F. Other (Identify)				

TOTAL PARTICIPANT COSTS		
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<i>PROPOSAL BUDGET SUMMARY (Continued)</i>	REQUESTED OBR/ORC FUNDS	OTHER FUNDS
4. OTHER TRAVEL (Field Trips; Meetings)		
A.		
B.		
5. SUPPLIES/MATERIALS (Provide Details in Budget Explanation)		
A. Books		
B. Instructional Materials		
C. Other (Identify)		
6. EQUIPMENT (Rental; Purchase)		
A.		
B.		
7. COMMUNICATIONS (Provide Details in Budget Explanation)		
A.		
B.		
8. SERVICES (Duplication, Publication—Provide Details in Budget Explanation)		
A.		
B.		
9. OTHER COSTS (Specify - Provide Details in Budget Explanation)		
A.		
B.		
TOTAL MISCELLANEOUS COSTS (Sum of Items 4–9)		
10. SUBTOTAL COSTS (Sum of Items 1–9)		
11. INDIRECT COSTS (Up to 8% of Subtotal Costs)		
12. TOTAL COSTS (Sum of Items 10-11)		
TOTAL REQUESTED OBR/ORC FUNDS		

APPENDIX: Evidence of Program Excellence

The following outline contains ideas for documenting program excellence in mathematics and science teacher education in the context of the role and mission of the College of Education within the university. These are optional ideas only. Proposal developers may develop a case for program excellence using criteria, materials, and existing documents of their choice.

1. Evidence of Improving Mathematics and Science Pre-Service and Inservice Teacher Preparation Programs

NCATE Approval Yes _____ No _____

- Math/science standards met:
- Math/science standards conditionally met:
- Math/science standards not met:
- (Append comments of NCATE review team)

Ohio Program Approval Yes _____ No _____

- Math/science standards met:
- Math/science standards conditionally met:
- Math/science standards not met:
- (Append comments of ODE review team)

SUSTAIN Project(s) Yes _____ No _____

(Append progress reports, reports of completed projects, abstracts of new projects)

PRAXIS Performance of Teacher Education Graduates

- Average PRAXIS score of 2000-01 graduates _____
- Mathematics _____
- Science _____

PRAXIS Pass Rates

- Mathematics _____
- Science _____

Number of Teachers Prepared (in proposed excellence area(s))

- Mathematics _____
- Science _____

National/State Program Awards (List and brief description)

Program Admission Criteria

- Teacher Education
- Mathematics
- Science

Program Exit Criteria

- Teacher Education
- Mathematics
- Science

2. Measurable Teacher Education Program Improvements in the Last Five Years

- a. New math/science standards-based courses (List)
- b. Improvements in existing math/science courses incorporating features of national standards (List)
- c. Math/science outreach and linkages to exemplary school districts for clinical programs (List)
- d. Evidence-based practices in math/science teacher education (List and cite evidence)
- e. New models for math/science teacher preparation (Describe)
- f. Follow-up of math/science graduates for program evaluation (List)
 - Procedures
 - Results
 - Program strengths
 - Program weaknesses
- g. Program themes (List and describe briefly)
- h. Theoretical framework for programs (Describe)
- i. Required courses for licensure programs (List courses that apply to university excellence proposal specialty -- only specialties being proposed for the Excellence grant)
 - Mathematics
 - Science

3. Institutionalized Collaboration among Arts & Sciences and Education

- a. Formal agreements of math/science collaboration and/or cooperation (List and append)
- b. Evidence of math/science support for collaboration from university leadership (List and append, i.e., letters, memoranda, contracts, etc.)
- c. Evidence of math/science collaborative activity (List and briefly describe, i.e., joint curriculum and course development, team teaching, supervision, etc.)

4. Collaboration among Institutions of Higher Education

- a. Formal agreements for collaboration between/among institutions
- b. Evidence of support for collaboration from institutional leadership
- c. Collaborative projects recently undertaken and/or successfully completed

5. Functional Partnerships with School Districts, Professional Development Centers, and Other Agencies

- a. Formal agreements of math/science collaboration and/or cooperation (List and append)
- b. Instances of math/science cooperative program development with school districts (List and describe)
- c. Evidence of math/science support for collaboration from university leadership/school district(s) (List and append, i.e., letters, memoranda, contracts, etc.)
- d. Evidence of math/science collaborative activity with school districts (List and briefly describe, i.e., joint curriculum and course development, team teaching, supervision, etc.)