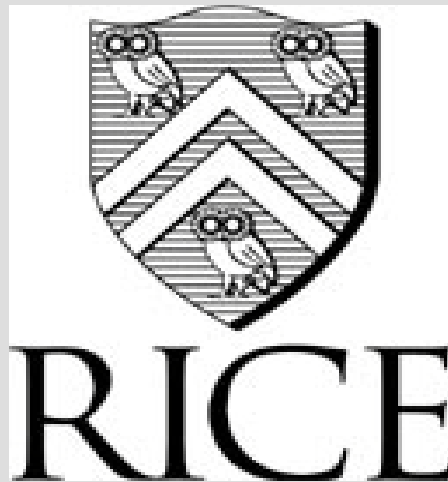


Leadership Development



Rice University/School District
Collaboration



Dr. Anne Papakonstantinou

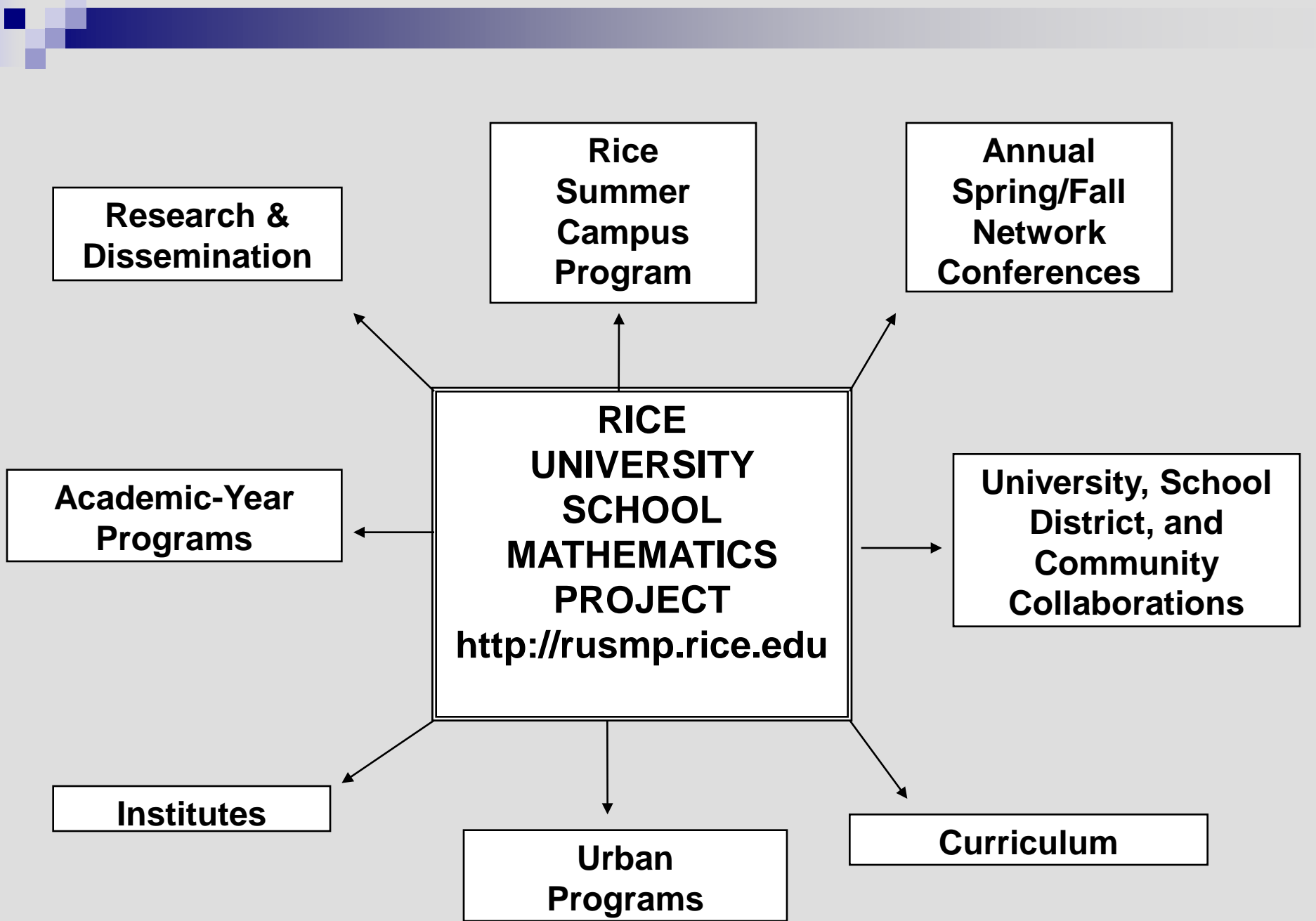
Director

Rice University School Mathematics Project

Dr. Jacqueline Sack

Manager

Rice University Mathematics Leadership Institute





School Mathematics under NCLB

Quality mathematics curricula

- develop problem-solving ability
- open doors for productive adulthood
- nurture independent thinking and life-long learning

Test-item driven curricula

- stifle problem-solving development
- lock students out of higher education
- prevent life-long learning



A Focus on Senior High Schools

- Unacceptable passing rates on TAKS
- High drop-out rates of students
- Paucity of highly-qualified mathematics teachers
- School reforms negatively impacting mathematics instruction



In 2004, the National Science Foundation awarded Rice University a \$3.8 million grant to establish the Mathematics Leadership Institute (MLI).



MLI Core Partners

- Aldine Independent School District
- Houston Independent School District
- Rice University
 - Rice University School Mathematics Project
 - Computational and Applied Mathematics Department
 - Mathematics Department
 - Statistics Department



MLI Overarching Goal

Positively impact all 40 high schools

- 10 in Aldine ISD
- 30 in Houston ISD



School District Support

- District-level
- Building-level
- Access to data



MLI Lead Teacher Experiences

- Summer Leadership Institute
- Monthly leadership meetings
- Collaboration with the Rice University mathematics community
- School-based support from the MLI leadership team



Our Observations to Date

In some classrooms:

- Group work
- Students talking about mathematics
- Graphing calculators used frequently
- Concept-based district curriculum

In others:

- Students sitting in rows
- Teacher talk dominating the lesson
- Pencil and paper tasks
- Test-item and/or skill-based curricula



Our Observations to Date

In some schools:

- Collaboration
- Culture of community
- Expectations and vision clearly articulated

In others:

- Colliding or parallel initiatives
- Culture of reaction
- Vision unclear



Next Steps for Lead Teachers

- Observing and mentoring
- Developing curriculum
- Planning collaboratively
- Collaborating with other instructional coaches in the school
- Pursuing National Board or Texas Master Teacher Certification



Visit the Rice University
School Mathematics Project
web site
<http://rusmp.rice.edu>