
Computer & Information Science and
Engineering Directorate (CISE)

CPATH

CISE Pathways to Revitalized Undergraduate Computing Education



Motivations for CPATH

- Fluctuating enrollments in academic programs
- Multidisciplinary nature of field
- Industry and workforce needs
- Need for more innovation in light of a global economy
- Multiple pathways to more effective education



Focus of CPATH

- Revitalize undergrad computing education in the US
- Effect fundamental change
- Engage CS leaders broadly
- Promote leadership, partnerships, community building, institutional transformation
- Contribute to national competitiveness



Types of Activities Funded by CPATH

<p>Community Building (CB)</p>	<ul style="list-style-type: none"> • Bring stakeholders together to transform undergraduate computing education • Encourage strategies at regional and/or national levels and across all institution types • Plan activities for transformation implementations and community building
<p>CISE Distinguished Education Fellows (CDEF)</p>	<ul style="list-style-type: none"> • Recognized leader • Innovative action project • Community building • Advocacy for undergraduate computing education • Prestige of CDEF award and designation within institution and departments
<p>Institutional Transformation (T)</p>	<ul style="list-style-type: none"> • Adopt/replicate innovative approaches now underway across institutions with community building • Evaluate particular approach across multiple institutions • Blur traditional boundaries in academic institutions • Involve a focus broader than curriculum building • Develop industry and international partnerships
<p>Evaluation, Adoption, and Extension (EAE)</p>	<ul style="list-style-type: none"> • Adopt promising models now underway • Evaluate impact of new models underway • Expand scope of ongoing efforts • Engage other institutions in implementing institution model • Disseminate lessons learned



CPATH Budget/Awards



- Standard Grant or Continuing Grant
- Estimated Number of Awards:
18 to 30 total.
 - 15 to 25 Community Building (CB) awards (several of which may be focused at the national level),
 - 1 or 2 Evaluation, Adoption and Extension (EAE) awards,
 - 1 or 2 Transformation (T) awards, and
 - 1 to 3 CISE Distinguished Education Fellow (CDEF) awards.
- Anticipated Funding Amount:
\$6,000,000 in FY 2007.
 - **CB** projects are likely to be funded from levels of \$50,000 to a maximum of \$500,000 total for durations up to three years.
 - **EAE** projects will be funded at levels up to \$900,000 total for durations of up to three years.
 - **T** projects will be funded at levels up to \$1,500,000 total for a maximum duration of five years.
 - **CDEF** projects will be supported at levels up to \$250,000 total for a maximum duration of two years, with potential for renewal for a third year.

CPATH Focus This Year

- Community building and CDEF projects
- Planning and pilot projects -- few full scale implementations
- Seed many promising ideas with competition in the future for full implementation



CPATH Points of Contact

Cognizant Program Officers:

- **Harriet Taylor**, NSF CISE/CNS Room 1175.13, telephone: (703) 292-7973, email: htaylor@nsf.gov
- **Anita La Salle**, NSF CISE/CNS Room 1175.19, telephone: (703) 292-5006, email: alasalle@nsf.gov
- **Janice Cuny**, NSF CISE/CNS Room 1175.07, telephone: (703) 292-8489, email: jcuny@nsf.gov
- **Le Gruenwald**, NSF CISE/IIS, 1125 S, telephone: (703) 292-8930, email: lgruenwa@nsf.gov
- **C.S. George Lee**, NSF CISE/IIS Room 1125 S, telephone: (703) 292-7838, email: csgelee@nsf.gov
- **Sylvia Spengler**, NSF CISE/IIS Room 1125 S, telephone: (703) 292-8930, email: sspengle@nsf.gov
- **Joseph Urban**, NSF CISE/CCF Room, 1115, telephone: (703) 292-8910, email: jurban@nsf.gov

