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

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<th>Types of Activities</th>
<th>Description</th>
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| **Community Building (CB)** | • 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 |
| **CISE Distinguished Education Fellows (CDEF)** | • Recognized leader  
• Innovative action project  
• Community building  
• Advocacy for undergraduate computing education  
• Prestige of CDEF award and designation within institution and departments |
| **Institutional Transformation (T)** | • 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 |
| **Evaluation, Adoption, and Extension (EAE)** | • 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

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