

## **Structural Options For Research Centers Program**

### **1. Same research topics for all applicants – large Centers**

This RFA would continue with the structure that EPA has used to date. It would include several research topics, listing specific science questions within each. All applicants would propose interdisciplinary research in response. Usually, each applicant addresses most of the questions listed in the RFA.

#### Strengths

- When multiple Centers address the same questions using different approaches, they produce a rich set of results that can be analyzed and compared at multiple levels. Examples include: statistical methods, technological innovations, and biological and atmospheric insights.
- Easier to foster collaboration among the Centers as they all would be addressing similar issues with different approaches.

#### Weaknesses

- With limited resources it may not be most efficient to have all Centers addressing the same set of questions.
- Most Centers will not have strong efforts in all areas.

### **2. Regional Centers**

This type of RFA would require Centers to have a regional focus, reflecting the understanding that air pollution exposures and effects may vary by region of the country depending on predominant sources, land use, and atmospheric conditions. The RFA would also require specific ties to state and local air quality decision makers and public health officials in that region. The topic areas could be loosely defined, in order to allow freedom for Centers to choose the air pollution research questions of most importance to their regions. The intent would be to develop strong links between health and atmospheric science researchers. The assumption with this option is that there could be more than one Center in any given region. There would be no pre-determined regions for the RFA. Selection of Centers would be based on a combination of scientific excellence and regional representation.

#### Strengths

- Would promote research on effective implementation strategies to achieve air quality goals.
- Ties to state and local air quality decision makers and public health officials in the regions will enhance the relevance and outcomes of the research.

#### Weaknesses

- Studies addressing national problems or impacts would be less likely to be proposed under this option.
- More difficult to promote collaborations across Centers.

### **3. Big and small Centers**

This RFA would solicit a certain number of large and small Centers. One example could be 2 large, multi-disciplinary Centers at current size and 3 or 4 smaller Centers at half size. The smaller Centers have the option of being multi-disciplinary, but smaller in scope. The topics for each size would be defined in the RFA.

#### Strengths

- Would make possible both large Centers modeled after the current ones that can address broad multi-disciplinary questions, as well as smaller Centers that could be targeted to specific areas.
- Would expand the range of applicants to include groups that are excellent in limited areas but not large enough to compete for a large Center.

#### Weaknesses

- Cross-Center efforts would be more challenging.

#### 4. Choice of one topic – large Centers

This RFA would fund large, multi-disciplinary Centers. The RFA would include two research topics and applicants would be required to respond to only one. The RFA would describe the scientific uncertainties of interest within each topic and present scientific questions under each. As an example, EPA might fund one Center studying the first topic and three Centers studying another topic (or 2 and 2).

#### Strengths

- Would allow applicants to focus the application on areas of strength and expertise instead of trying to cover multiple or too broad topics.
- Promotes more focus within a given Center and advances the science in two distinct areas.

#### Weaknesses

- May not receive strong scientific applications in both areas, resulting in a limited scope of the program.
- Cross-Center efforts would be less likely across Centers addressing different topics.

#### 5. Other – Such as a hybrid of any options above