

Balancing the Multiple Objectives of Conservation Programs

**Andrea Cattaneo, Daniel Hellerstein,
Cynthia Nickerson, and Christina Myers**



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Abstract

Many of the Nation's conservation programs seek to achieve multiple environmental objectives. Implementing a multi-objective program efficiently requires program managers to balance different environmental and cost objectives. A number of conservation programs use an index approach to prioritize objectives and rank program applications. This approach keeps program objectives distinct and enables program managers to use weights to determine the relative importance of each objective. This report provides empirical evidence on the environmental and cost tradeoffs of different index weighting schemes in USDA's Conservation Reserve Program (CRP). The analyses take into account both land characteristics and how changes to an index affect producer decisions to voluntarily apply. While small changes in index weights do not markedly affect the outcomes of the CRP, larger changes can have a moderate effect. Opportunities for obtaining multiple environmental benefits simultaneously by increasing the index weight on one objective appear limited, and increasing an objective's index weight by at least 20 percent can trigger losses of benefits related to other objectives. Weight changes in smaller incremental program enrollments also result in more tradeoffs than in very large program enrollments.

Keywords: Conservation Reserve Program, Environmental Benefits Index, environmental benefits, conservation program participation.

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