PART II: FISCAL YEAR 2006 PERFORMANCE REPORT

Performance Report

INTRODUCTION

The Government Performance and Results Act of 1993 (GPRA) requires all federal agencies to submit a report to Congress on actual program results at the end of each fiscal year. This report documents the Appalachian Regional Commission's (ARC) progress toward fulfilling its mission and goals. The report

- Compares ARC performance goals to estimated results reported by the projects of the 13 Appalachian states;
- Summarizes the findings of several ARC-initiated program evaluations and validation endeavors; and
- Describes unmet performance goals and explains why those goals were not met, and, if goals are impractical or infeasible, identifies steps to be taken to address the problem.

To meet GPRA requirements, ARC has defined performance measures and goals for all major ARC operations. In FY 2006, ARC

- Collected and entered state estimates of results for FY 2006 into a database as part of daily operations and project management;
- Evaluated the planned and actual results of a sample of projects funded in FY 2003 and FY 2004 through field visits and interviews with those managing the projects; and
- Conducted independent evaluations to ascertain the benefits of projects.

ARC uses performance data as a management tool to inform the management process. In addition, staff use ARC.net, ARC's management information system, to track critical project performance information. ARC staff review performance measurement data generated by programs throughout the fiscal year to analyze trends and validate data. ARC routinely shares such information with program partners through "best practices" conferences and on-site validation visits with grantees. ARC's Policy Development Committee has also used research, evaluations, validation visits, and staff monitoring to develop and revise guidelines for program activities.

The four goals from ARC's 2005–2010 strategic plan, *Moving Appalachia Forward*, were used to evaluate performance in FY 2006.

FY 2006 Outcome Goals and Intermediate Results	
ANNUAL PERFORMANCE GOAL	**INTERMEDIATE ESTIMATES**
20,000 Jobs Created or Retained	28,866 Jobs Created or Retained
20,000 Students/Trainees with Improvements	17,578 Students/Trainees with Improvements
20,000 Households Served	30,148 Households Served
25 Miles of the ADHS Opened to Traffic	30.8 Miles of the ADHS Opened to Traffic

The following sections of this report present an overview of the Appalachian Regional Commission, a list of ARC goals and objectives, a description of the methodology employed to monitor program outcomes in compliance with the GPRA, the estimated outcomes for projects funded in FY 2006 and each of the three prior fiscal years, and the results of project validation samplings and project evaluations.

Performance Report

OVERVIEW OF ARC

ARC's vision is that Appalachia will achieve socioeconomic parity with the nation.

ARC's mission is to be a strategic partner and advocate for sustainable community and economic development in Appalachia.

Organizational Structure

The Appalachian Regional Commission is a regional economic development agency representing a unique partnership of federal, state, and local governments designed to address local needs in Appalachia. ARC was established by an act of Congress and operates under congressional authorizations. In March 2002, a five-year reauthorization (through FY 2006) was enacted.

The Commission is composed of the governors of the 13 Appalachian states and a federal co-chair, who is appointed by the president. Grassroots participation is provided through multi-county local development districts, with boards made up of elected officials and other local public and private leaders. Each year Congress appropriates funds for the Commission's programs, which ARC allocates among its member states. At the beginning of their terms in office, Appalachian governors submit development plans for the Appalachian counties in their states. The Commission votes to approve these plans. The governors also submit annual strategy statements developed from the plans, and must select projects for ARC approval and funding based on these statements.

Project Funding

ARC funds more than 400 projects annually throughout the 13-state Appalachian Region. All of the projects must address one of the four goals in ARC's 2005–2010 strategic plan: increase job opportunities and per capita income in Appalachia to reach parity with the nation; strengthen the capacity of the people of Appalachia to compete in the global economy; develop and improve Appalachia's infrastructure to make the Region economically competitive; and build the Appalachian Development Highway System to reduce Appalachia's isolation. The Commission's strategic plan identifies the goal areas as the basic building blocks of sustainable economic development in the Region.

All projects are approved by a governor and by ARC's federal co-chair. ARC provides technical assistance to grantees in an effort to increase the likelihood that the project will be successful.

One of the key differences between ARC and typical federal executive agencies and departments is the flexibility given to the states in determining how their allocated funds will be spent. This flexibility exists within a framework: funds must be spent in counties designated as part of the Appalachian Region; projects must address one or more of the Commission's four goals; and a specified amount of the funds allocated to each state can be used only on projects that benefit counties and areas the Commission has designated as economically distressed.

GENERAL GOALS AND OBJECTIVES

In accordance with its 2005–2010 strategic plan, ARC organizes its funding policies and administration programs around four goals to carry out its mission. Strategic objectives under each goal embody core ARC policies.

Goal 1: Increase Job Opportunities and Per Capita Income in Appalachia to Reach Parity with the Nation.

Strategic Objectives

1.1: Foster Civic Entrepreneurship
1.2: Diversify the Economic Base
1.3: Enhance Entrepreneurial Activity in the Region
1.4: Develop and Market Strategic Assets for Local Economies
1.5: Increase the Domestic and Global Competitiveness of the Existing Economic Base
1.6: Foster the Development and Use of Innovative Technologies
1.7: Capitalize on the Economic Potential of the Appalachian Development Highway System

Key outcome measure: Number of jobs created or retained.

Goal 2: Strengthen the Capacity of the People of Appalachia to Compete in the Global Economy.

Strategic Objectives

2.1: Foster Civic Entrepreneurship
2.2: Enhance Workforce Skills through Training
2.3: Increase Access to Quality Child Care and Early Childhood Education
2.4: Increase Educational Attainment and Achievement
2.5: Provide Access to Health-Care Professionals
2.6: Promote Health through Wellness and Prevention

Key outcome measure: Number of citizens of the Region that have benefited from enhanced education and job-related skills.

Goal 3: Develop and Improve Appalachia's Infrastructure to Make the Region Economically Competitive.

Strategic Objectives

3.1: Foster Civic Entrepreneurship

3.2: Build and Enhance Basic Infrastructure

3.3: Increase the Accessibility and Use of Telecommunications Technology

3.4: Build and Enhance Environmental Assets

3.5: Promote the Development of an Intermodal Transportation Network

Key outcome measure: Number of households served with new or improved water and/or sewer infrastructure, and number of jobs created or retained.

Goal 4: Build the Appalachian Development Highway System to Reduce Appalachia's Isolation.

Strategic Objectives

4.1: Foster Civic Entrepreneurship

4.2: Promote On-Schedule Completion of the Appalachian Development Highway System (ADHS)

4.3: Coordinate Work on ADHS State-Line Crossings

Key outcome measure: Number of miles of the ADHS opened to traffic.

PERFORMANCE MEASUREMENT METHODOLOGY

Overview of ARC's Performance Measurement Program

ARC's performance measurement program was designed to accomplish two primary objectives: compliance with the GPRA in measuring the outcomes of ARC projects, and creation of a process that allowed for both feedback from grantees and analysis of funded projects, in an effort to improve programming.

ARC's performance measurement program has three components:

- Project data collection and analysis through use of a management information system;
- Site visits to validate actual outcomes of a sample of projects; and
- Independent project evaluations.

These three components work together to allow GPRA reporting and compliance and to help ARC glean "lessons learned" from previously funded grants. By structuring the program in this manner, ARC has made the GPRA a management tool and a valuable resource in determining program effectiveness.

This report presents performance goal results for each of ARC's general goal areas. It is important to note that two key outcome measures cut across general goal areas. To simplify the reporting of these measures, results from each general goal area are totaled and reported under the general goal that most closely aligns with the outcome measure. For example, one of ARC's outcome measures is jobs created or retained. ARC measures results for jobs created or retained by projects funded under general goals 1, 2, and 3. For clarity, this outcome measure is discussed, and results from all three general goal areas are reported, under general goal 1.

Project Data Collection and Analysis

Annual Performance Measures and Goals

Each fiscal year, ARC submits to the Office of Management and Budget (OMB) annual performance goals for projects to be funded in coming years, as required in the budget submission process. In determining these goals, ARC develops likely investment scenarios for the 13 Appalachian states, anticipating how each state will direct ARC funds in addressing the four goal areas. The scenarios are based on state development plans, strategy statements, historical trends, and communication with the states. ARC uses these scenarios to project outcome results; however, the states have flexibility in spending decisions, although all projects are reviewed and approved by the federal co-chair and must pursue one of ARC's four goals. The states' spending flexibility is a critical element of the ARC federal-state partnership but poses challenges in setting performance goals. Each state's priorities will shift from year to year, occasionally producing unanticipated results.

Before FY 2005, ARC focused exclusively on assessing agency outcomes and outputs. As a result of OMB's 2004 review of the ARC program using the Program Assessment Rating Tool, ARC established measurements for targeting investment and for leveraging non-ARC project funding and private non-project investment resulting from the completion of ARC-funded projects. ARC now includes performance goals for the percentage of funds directed to distressed counties and for investment ratios. Both non-ARC funds used as a match in projects and non-project leveraged private investment have been recorded by ARC in the past; however, in FY 2005 ratios of these funds to ARC funding were established as annual goals.

To address GPRA reporting requirements, ARC reports outcome, leveraging/matching, and targeting results in four program categories that reflect priorities within the Commission's four goals. Although the projects funded by ARC each year generate many more measures than those reported for GPRA compliance, the measures reported relate uniquely to ARC's four goals and to its mission (See table on page 41).

Program Category One: Jobs and Income. The following measures are presented in Goal 1.

1) *Key Outcome Measures:* The number of jobs created and the number of jobs retained.

"Jobs created" includes any direct hires that will be made as a result of the project's operation, not including highway or building construction jobs. Also included are private-sector jobs that will be created within three years after ARC-funded services or projects are complete. These jobs are usually related to additional investments in manufacturing plants and equipment, and retail and commercial real estate development. Part-time jobs are converted to full-time equivalents and rounded up to whole numbers.

"Jobs retained" refers to the number of workers actually enrolled in specific training programs, or to the number of jobs at businesses that will be retained because of an investment that is needed to keep the businesses and jobs in the area or in continued operation.

These two measures are combined and reported together as "jobs created/retained."

2) *Leveraging Measure:* The ratio of leveraged private investment (LPI) to ARC investment for all Goal 1 projects.

LPI represents private-sector, non-project financial commitments that follow and are the result of the completion of an ARC-supported project or the delivery of services under an ARC-supported project. Leveraged private investment is a performance measurement because it is a desired outcome; and it represents the private investment supporting job creation. It is generally estimated for the three-year period following the completion of a project and is separate from any direct private contribution to ARC-supported project funding.

3) *Targeting Measure:* The percentage of nonhighway ARC funds used for projects that benefit distressed counties or areas.

Program Category Two: Competitiveness. The following measures are presented in Goal 2.

1) *Key Outcome Measures:* The number of students with improvements and the number of workers/trainees with improvements.

"Students with improvements" is the number of students who, as a result of an ARC-funded project, receive a career credential or obtain a job in the field for which they were specifically trained, or are passed or certified as graduating to the next grade or level necessary to continue their education.

"Workers/trainees with improvements" is the total number of participants that obtain new employment or enhanced employment (e.g., receive higher pay or better positions) as a result of ARC-funded projects.

These two measures are combined and recorded together as "students/trainees with improvements."

2) *Matching Measure:* The ratio of non-ARC to ARC investment for projects in Goal 2.

This ratio sets a goal for non-ARC matching project funds. Ratios showing the amount of ARC funding to other project investment sources help illustrate the impact ARC's relatively small, flexible grants can have in the Appalachian Region.

3) *Targeting Measure:* The percentage of nonhighway ARC funds used for projects that benefit distressed counties or areas.

Program Category Three: Infrastructure. The following measures are presented in Goal 3.

1) *Key Outcome Measure:* The number of households served.

Infrastructure projects measured in this category include general water and/or sewer projects. "Households served" encompasses the number of households with either new or improved service.

2) *Matching Measure:* The ratio of non-ARC to ARC investment for projects in Goal 3.

This ratio sets a goal for non-ARC matching project funds. Ratios showing the amount of ARC funding to other project investment sources help illustrate the impact ARC's relatively small, flexible grants can have in the Appalachian Region.

3) *Targeting Measure:* The percentage of nonhighway ARC funds used for projects that benefit distressed counties or areas.

Program Category Four: Highways. The following measure is presented in Goal 4.

Key Outcome Measure: The number of miles of the Appalachian Development Highway System (ADHS) opened to traffic.

Progress on the ADHS is measured by the number of miles opened to traffic each year. ARC also prepares a separate annual report, *Status of the Appalachian Development Highway System*, which provides detailed information on the portions of highway moving through the various stages of work in each state, as well as an analysis of funding and remaining work.

Intermediate Results

Intermediate results presented in this report are derived from estimates in project applications, as reported by grantees. When projects are closed, actual results to date are recorded; however, some estimates are based on three-year projections. More accurate results are obtained when ARC staff validate a sample of projects two to three years after initial funding. The validity of final numbers is sampled during periodic project evaluations (see page 42).

Data Analysis

Critical data from projects submitted to ARC for funding are entered into the Commission's management information system, ARC.net, which has been upgraded to serve as a management tool to facilitate improved monitoring of projects. At quarterly intervals throughout the fiscal year, ARC staff review performance measurement data generated by programs to better understand emerging trends, improve data integrity, and shape policy to improve the program. At the close of each fiscal year, ARC staff review results and prepare the data for submission to OMB and Congress.

Development of Web-Based Resources

In response to the need to improve performance measurement processes, ARC has developed a prototype of a Web-based tool for grant development and performance measurement. The Commission staff is working with the 13 Appalachian states and the Region's 72 local development districts to implement the tool.

The Commission's purpose in developing the tool was threefold:

1. Improve the quality of performance measurement and outcomes of ARC-supported projects and help meet the evolving performance and budget requirements of OMB;
2. Improve the efficiency of the Commission's business processes; and
3. Enhance the Commission's capabilities to report to the federal government and the public.

The implementation process will take place during FY 2007. The tool will result in the following capabilities:

- Web-based technical assistance tools for applicants, states, and local development districts;
- A stronger project design process, with direct links to ARC's goals and objectives;
- Performance measures and baselines that are established during the project design phase (to assist with measurement during and after project implementation); and
- Opportunities to identify efficiency improvements, report findings, and make recommendations to improve the project design process.

ARC Performance Measurement Framework
Fiscal Year 2006

Program Category	**JOBS AND INCOME**	**COMPETITIVENESS**	**INFRASTRUCTURE**	**HIGHWAYS**
General Goals	**Increase job opportunities and per capita income in Appalachia to reach parity with the nation.** **Performance Goal 2005–2010:** Create or retain 120,000 jobs.	**Strengthen the capacity of the people of Appalachia to compete in the global economy.** **Performance Goal 2005–2010:** Provide 120,000 Appalachian citizens with enhanced education/skills.	**Develop and improve Appalachia's infrastructure to make the Region economically competitive.** **Performance Goal 2005–2010:** Provide new or improved water/sewer services to 120,000 households.	**Build the Appalachian Development Highway System to reduce Appalachia's isolation.** **Performance Goal 2005–2010:** Open 150 miles of the ADHS to traffic.
Annual Goals	**Outcome Goal:** Create or retain 20,000 jobs for Appalachians. **Leveraging Goal:** Achieve a 4:1 ratio of leveraged private investment (non-project investment) to ARC project funding. **Targeting Goal:** Direct 50% of grant funds to projects that benefit distressed counties or areas.	**Outcome Goal:** Position 20,000 Appalachians for enhanced employability. **Matching Goal:** Achieve a 1:1 ratio of non-ARC project funding to ARC project funding. **Targeting Goal:** Direct 50% of grant funds to projects that benefit distressed counties or areas.	**Outcome Goal:** Provide 20,000 households with basic infrastructure services. **Matching Goal:** Achieve a 2:1 ratio of non-ARC project funding to ARC project funding. **Targeting Goal:** Direct 50% of grant funds to projects that benefit distressed counties or areas.	**Outcome Goal:** Open 25 miles of the ADHS to traffic.
Input and Activities	**Key Strategies and Activities:** Promote economic diversification through advocacy, regional forums, information sharing, training, and cooperative funding. Target entrepreneurship development and business support.	**Key Strategies and Activities:** Increase employability by identifying and replicating exemplary programs, expanding alliances with other organizations, and providing funding leadership. Focus on college-going rates, worker skills, science/math programs, school readiness, and high school completion rates. Address health access issues.	**Key Strategies and Activities:** Seek highly leveraged and collaborative funding for basic infrastructure projects, emphasizing clean water and waste disposal programs. Expand telecommunications infrastructure through advocacy, knowledge sharing, and targeted funding.	**Key Strategy:** Work to complete the ADHS in close cooperation with state and federal partners as Highway Trust Fund financing becomes available.

Project Validation

Staff validation visits have been a critical part of validating actual program outcomes from the inception of ARC's GPRA compliance program. As a general rule, in each fiscal year ARC validates the outcomes of 40 to 60 projects funded two to three years earlier. The two- or three-year lag allows time for most projects to be completed, resulting in a more accurate sampling of outcomes.

The validation visits performed by ARC staff yield far more than project outcomes. Grantees are asked a series of questions aimed at providing insight into why their projects were or were not successful in reaching their stated outcomes. The result is a feedback loop that allows ARC to better understand the consequences of its programming and make policy or procedural changes as the need arises.

In situations where a project failed to meet proposed goals, ARC staff consider mitigating circumstances and look for possible trends in an effort to assist other projects faced with similar challenges. Likewise, when a project has exceeded proposed goals, ARC staff attempt to determine why. Analyses from the field validation visits are compiled in an annual internal report.

Project Evaluations: Final Results

A critical component of ARC's GPRA compliance program is independent or external evaluation of ARC programs. Evaluations confirm both the outcomes and the overall effectiveness of projects. Evaluations focus on the extent to which the projects have achieved, or contributed to the attainment of, their objectives. Particular emphasis is placed on assessing the utility and validity of the outcome measures. The findings of these project evaluations are summarized and made available to state and local organizations engaged in carrying out projects under the four goals in ARC's strategic plan, and are typically published on ARC's Web site. Summaries of recent evaluations are included in this report under each goal area.

Goal 1: Increase Job Opportunities and Per Capita Income in Appalachia to Reach Parity with the Nation

In partnership with other agencies, ARC will help local and state leaders diversify local economies, support entrepreneurship, increase domestic and global markets, and foster new technologies in order to address job shifts throughout the Region. In addition, ARC will encourage local leaders to build on the opportunities presented by Appalachian highway corridors and to examine natural, cultural, structural, and leadership assets that can create job opportunities while preserving the character of the Region's communities.

Strategic Objective 1.1: Foster Civic Entrepreneurship. This objective supports selected strategies including broad-based leadership, collaboration, partnerships, regional initiatives, strategic planning, training, and consultation.

Strategic Objective 1.2: Diversify the Economic Base. This objective supports selected strategies including development of new businesses and products, modernization and strengthening of existing businesses and their workforce, and increasing awareness of available economic development tools.

Strategic Objective 1.3: Enhance Entrepreneurial Activity in the Region. This objective supports selected strategies including access to investment capital, entrepreneurship training, and technical assistance for businesses.

Strategic Objective 1.4: Develop and Market Strategic Assets for Local Economies. This objective supports selected strategies including identifying local and regional assets, creating strategies for local businesses to capitalize on these assets, and specifically maximizing economic benefits of heritage tourism and craft industries.

Strategic Objective 1.5: Increase the Domestic and Global Competitiveness of the Existing Economic Base. This objective supports selected strategies including research in global and domestic development, aiding small businesses in connecting to national and global markets, and promoting foreign investment in the Region.

Strategic Objective 1.6: Foster the Development and Use of Innovative Technologies. This objective supports selected strategies including expansion and creation of high-tech operations and research, increased support for public-sector science and technology programs, and commercialization of new technologies.

Strategic Objective 1.7: Capitalize on the Economic Potential of the Appalachian Development Highway System. This objective supports selected strategies including strategic planning and development initiatives along completed and future sections of the ADHS, and promoting cooperation between highway and economic development officials.

Per Capita Income

While ARC sets a performance goal for increasing job opportunities in Appalachia, addressing increases in per capita income resulting directly from specific projects is much more difficult. For this reason, ARC depends on tracking trends in per capita market income, as well as on census poverty measures and comparisons between the Appalachian Region and the nation.

In FY 2006, ARC assigned each of the 410 Appalachian counties to one of five economic categories—distressed, at-risk, transitional, competitive, and attainment—based on a comparison with national averages and critical thresholds for poverty and unemployment rates and per capita market income (per capita income less transfer payments).

- *Distressed counties* are the most economically depressed counties. These counties have three-year average unemployment rates at least 1.5 times the national average, per capita market income no greater than two-thirds of the national average, and poverty rates at least 1.5 times the national average; OR they have at least twice the national poverty rate and meet the criteria for either the unemployment or the income indicator.

- *At-risk counties* are counties at risk of becoming economically distressed. These counties have three-year average unemployment rates at least 1.25 times the national average, per capita market income no greater than two-thirds of the national average, and poverty rates at least 1.25 times the national average; OR they meet the criteria for two of the three distressed-level indicators.

- *Transitional counties* have rates worse than the national average for one or more of the three economic indicators but do not meet the criteria for the distressed or at-risk levels.

- *Competitive counties* have three-year average unemployment rates and poverty rates equal to or better than the national average, and per capita market income equal to or greater than 80 percent, but less than 100 percent, of the national average.

- *Attainment counties* have economic indicators equal to or better than the national averages.

In FY 2006, 77 counties were designated distressed counties, 81 were designated at-risk counties, 222 were designated transitional counties, 22 were designated competitive counties, and 8 were designated attainment counties.

Performance Goals and Measures

Goal 1 is aligned with the annual performance goals listed under “jobs and income.” (See page 41.)

Key Outcome Goal

The strategic plan describes the major outcome measure for the "jobs and income" program category as the number of jobs created or retained. Because Goal 1 is most closely aligned with the annual performance goals listed under the "jobs and income" program category, results for "jobs and income" projects from Goals 1, 2, and 3 are reported under this goal. "Jobs created or retained" is an outcome measure under all three goals. This measure is referred to as "jobs created/retained."

Annual performance goal for FY 2006: Create/retain 20,000 jobs for Appalachians.

Results for FY 2006: Exceeded goal.

Outcome Goal: Create/Retain 20,000 Jobs for Appalachians	
ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES
FY 2003: 45,000 Jobs Created/Retained*	FY 2003: 30,783 Jobs Created/Retained*
FY 2004: 28,000 Jobs Created/Retained*	FY 2004: 26,142 Jobs Created/Retained*
FY 2005: 20,000 Jobs Created/Retained	FY 2005: 19,346 Jobs Created/Retained
FY 2006: 20,000 Jobs Created/Retained	**FY 2006: 28,866 Jobs Created/Retained**

**Prior to ARC's 2005–2010 strategic plan, ARC reported jobs created or retained under four different objectives in two goal areas. The numbers for fiscal years 2003 and 2004 on this table are totals of numbers reported in prior years under those four objectives.*

Leverage Goal

The leverage performance goal for Goal 1 projects is a ratio of leveraged private investment to ARC investment.

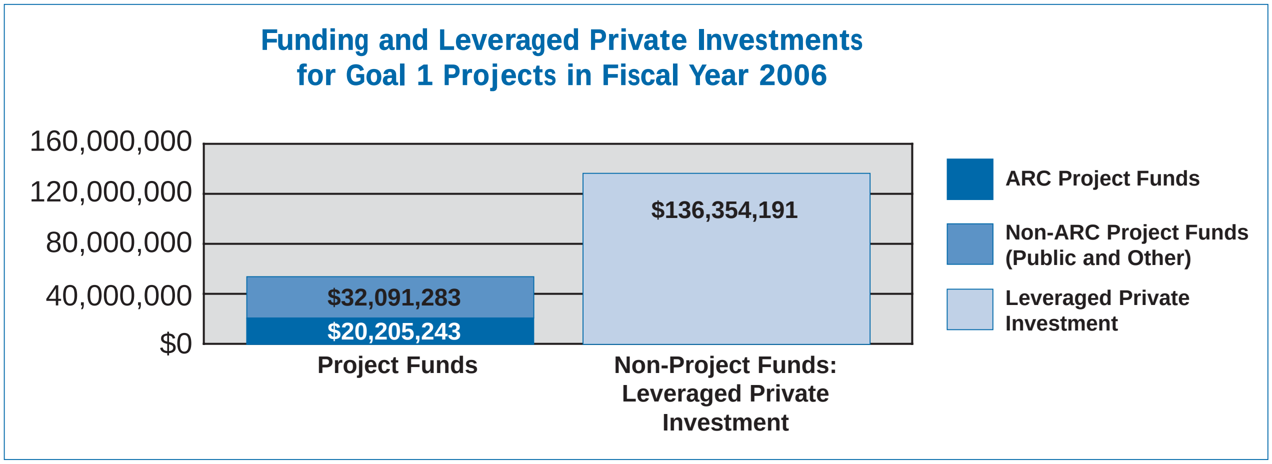
Annual performance goal for FY 2006: Achieve a 4:1 ratio of leveraged private investment to ARC investment.

Results for FY 2006: Exceeded goal.

Leveraging Goal: Achieve a 4:1 Ratio of Leveraged Private Investment to ARC Investment	
ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES
FY 2005: Achieve a 4:1 ratio of leveraged private investment to ARC investment.	**FY 2005:** Achieved a 7:1 ratio.
FY 2006: Achieve a 4:1 ratio of leveraged private investment to ARC investment.	**FY 2006:** Achieved a 7:1 ratio.

Note: This was not a performance goal reported in the PAR prior to FY 2005, so there are no data prior to FY 2005 for comparison.

In FY 2006, ARC's Goal 1 grant funds of $20,205,243 attracted non-project leveraged private investment of $136,354,191, and $32,091,283 in matching project funds from public and other sources.



Targeting Goal

The targeting performance goal for Goal 1 projects is the percentage of funds targeted to distressed counties or areas.

Annual performance goal for FY 2006: Direct 50 percent of grant funds to projects that benefit distressed counties or areas.

Results for FY 2006: In FY 2006, 61 percent of all ARC nonhighway project funds were directed to projects that benefit distressed counties or areas. ARC tracks the percentage of funds targeted to distressed counties separately in goals 1, 2, and 3 for management purposes only.

Targeting Goal: Direct 50 Percent of Goal 1 Grant Funds to Distressed Counties or Areas

ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES*
FY 2005: Direct 50% of grant funds to projects that benefit distressed counties or areas.	**FY 2005:** Directed 45% of Goal 1 funds.
FY 2006: Direct 50% of grant funds to projects that benefit distressed counties or areas.	**FY 2006:** Directed 46% of Goal 1 funds.

Note: This was not a performance goal reported in the PAR prior to FY 2005, so there are no data prior to FY 2005 for comparison.
** Includes projects that primarily benefit distressed counties or areas, and projects where most beneficiaries of the project are in distressed counties or areas.*

Project Validation Sampling

In FY 2006, members of ARC's field validation team surveyed ten FY 2003 and FY 2004 projects with goals for jobs created/retained to compare estimated and actual results.

Number of Projects Surveyed	Projected Number of Jobs Created/Retained	Actual Number of Jobs Created/Retained	Results Achieved
10	6,411	6,265	98%

The projects surveyed achieved 98 percent of projected results for jobs created/retained. The performance goal was set at an approximate target level, and the deviation from that level was slight. There was no effect on overall program or activity performance.

Project Evaluation: Final Results

Entrepreneurship

In FY 2006 ARC awarded a contract to the Rural Policy Research Institute Center for Rural Entrepreneurship to conduct a new evaluation of the Commission's Entrepreneurship Initiative. This evaluation will examine the outcomes of a sample of projects that were funded between 1997 and 2004 and are now completed. The sample will include projects that promote access to capital and financial assistance, technical and managerial assistance, technology transfer, entrepreneurial education and training, and entrepreneurial networks. The evaluation will determine the extent to which these projects have achieved or contributed to the attainment of the projects' objectives and will show how these results compare with national and regional outcomes for similar projects.

In FY 2001, the Appalachian Regional Commission issued the report *Evaluation of the Early Stages of the Appalachian Regional Commission's Entrepreneurship Initiative*, prepared by Regional Technology Strategies, Inc. The report evaluated 24 entrepreneurship projects that were complete or nearly complete during the 1997–2000 period. The sample was generally representative of the project mix and participation rates by state, as drawn from the 48 projects that were complete or nearly complete. Total ARC funding for these 24 projects was $2,124,700, which leveraged another $1,412,000 in funding from other sources.

The study found that three-quarters of the projects had helped firms develop new products or upgrade new technologies. In addition, half of the projects reported starting new businesses, for a total of 304 new firms—46 firms with employees and 258 firms that were sole proprietorships. A total of 377 new jobs were created by the projects: 69 jobs in new firms, 50 in existing firms, and 258 through self-employment.

The study also recommended that the program increase the amount of technical assistance provided to grantees, support the development of more internal evaluation and self-monitoring systems within the projects and businesses served, make fewer small grants, recognize the risk inherent in entrepreneurship, and seek to replicate the successful projects. Despite the reports of success, it was recognized that this evaluation occurred too early to provide comprehensive results.

Through the Entrepreneurship Initiative and ARC area development funds, the Commission has funded 462 entrepreneurship projects, which provided a total of over $47 million for a range of program activities. These projects have leveraged $76.7 million in project funds from state and local government and other sources, and a projected total of $108 million in follow-on private (non-project) investment. The projects have created 1,784 new businesses to date and are projected to create a total of 3,197 new businesses.

Capacity Building

In FY 2004, the Appalachian Regional Commission issued the report *Evaluation of the Appalachian Regional Commission's Community Capacity-Building Projects*, prepared by the Westat Corporation. The purpose of the evaluation was to assess factors associated with successful capacity-building projects and to recommend a range of performance measures that could be used to document the impact of successful initiatives. One hundred projects were examined in the study, all of which were funded by ARC between 1995 and 2003. Total ARC funding for the projects was roughly $7 million. The report's evaluation includes both quantitative and qualitative findings on outcomes, based on multiple sources (i.e., documentary evidence, interviews, and case studies) and incorporated lessons learned about community capacity building, including studies conducted by various foundations, private nonprofits, academic researchers, and federal agencies. Findings of the study are summarized below.

Findings: Most (70 percent) of the 179 outcomes proposed by interviewed projects were successfully achieved. Of the remaining outcomes, 9 percent had not been achieved, 10 percent were still open, and 11 percent lacked information on attainment.

Recommendations: ARC application materials for community capacity-building projects should provide information and examples to help applicants execute and document their approach and outcomes more accurately; ARC should work more closely with applicants during this process. In addition, ARC should provide grantees with written materials on data collection and analysis practices.

Goal 2: Strengthen the Capacity of the People of Appalachia to Compete in the Global Economy

ARC will continue to support local efforts to make all of the Region's citizens productive participants in the global economy. The Commission's focus will be to address a range of educational issues, such as workforce skills, early childhood education, dropout prevention, and improved college attendance; and health issues, such as the recruitment and retention of health-care professionals in areas with documented shortages and the promotion of better health through wellness and prevention measures. In addition, ARC will develop partnerships with other organizations to address the high incidence of life-threatening diseases in the Region.

Strategic Objective 2.1: Foster Civic Entrepreneurship. This objective supports selected strategies that include collaboration between businesses and training institutions, youth civic education and participation, and community dialogue on local health issues.

Strategic Objective 2.2: Enhance Workforce Skills through Training. This objective supports selected strategies including new and innovative workforce training and vocational education, and modernization and expansion of existing programs.

Strategic Objective 2.3: Increase Access to Quality Child Care and Early Childhood Education. This objective supports selected strategies including access to, and expansion of, early childhood education programs, and access to quality child care.

Strategic Objective 2.4: Increase Educational Attainment and Achievement. This objective supports selected strategies including preparation for post-secondary-level training, expansion of the Appalachian Higher Education Network, and programs for dropout prevention and increasing the college-going rate.

Strategic Objective 2.5: Provide Access to Health-Care Professionals. This objective supports selected strategies including access to health-care programs, the J-1 Visa Waiver Program, health-care professional training programs, and primary-care systems.

Strategic Objective 2.6: Promote Health through Wellness and Prevention. This objective supports selected strategies including promotion of nutrition, physical activity, and early screening; and programs that promote healthy lifestyles, and help eliminate drug and/or alcohol abuse.

Performance Goals and Measures

Goal 2 is aligned with the annual performance goals listed under "competitiveness." (See page 41.)

Key Outcome Goal

The strategic plan describes the major outcome measure for the "competitiveness" program category as the number of citizens in the Region that have benefited from enhanced education or job-related skills. Because Goal 2 is most closely aligned with the annual performance goals listed under the "competitiveness" program category, results for "competitiveness" projects from Goals 1, 2, and 3 are reported under this goal. "Competitiveness" is an outcome measure under all three goals. This outcome measure combines the measures "students with improvements" and "workers/trainees with improvements" and is referred to as "students/trainees."

Annual performance goal for FY 2006: Position 20,000 Appalachians for enhanced employability.

Results for FY 2006: Met 88 percent of goal. In FY 2006, states put more emphasis on infrastructure projects (yielding larger numbers of jobs and households served) than on education and training projects.

Outcome Goal: Position 20,000 Appalachians for Enhanced Employability

ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES
FY 2003: 17,500 Students/Trainees with Improvements*	FY 2003: 53,258 Students/Trainees with Improvements*
FY 2004: 12,000 Students/Trainees with Improvements*	FY 2004: 21,190 Students/Trainees with Improvements*
FY 2005: 20,000 Students/Trainees with Improvements	FY 2005: 27,652 Students/Trainees with Improvements
FY 2006: 20,000 Students/Trainees with Improvements	**FY 2006: 17,578 Students/Trainees with Improvements**

**Prior to ARC's 2005–2010 strategic plan, ARC reported on trainees with improvements and students with improvements under two different objectives. The numbers for fiscal years 2003 and 2004 on this table are totals of numbers reported in prior years under those objectives.*

Matching Goal

The matching performance goal for Goal 2 projects is the ratio of non-ARC project matching funds to ARC investment.

Annual performance goal for FY 2006: Achieve a 1:1 ratio of non-ARC matching funds to ARC investment.

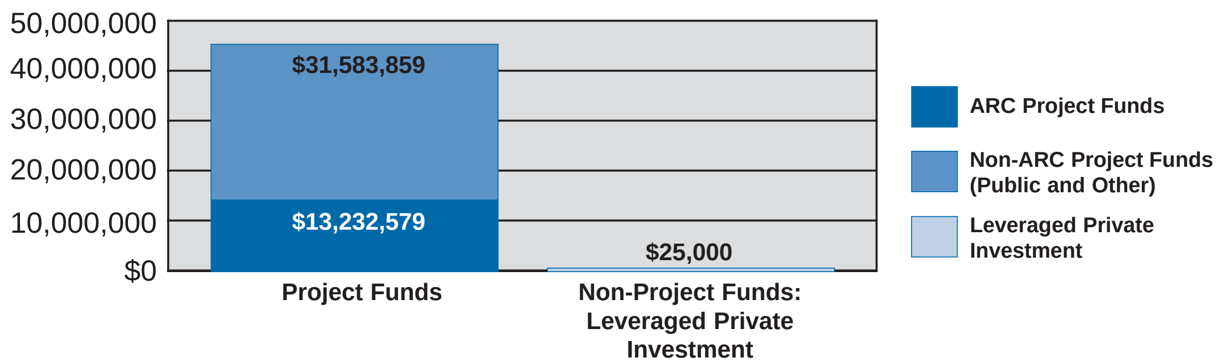
Results for FY 2006: Exceeded goal.

Matching Goal: Achieve a 1:1 Ratio of Non-ARC Matching Project Funds to ARC Investment	
ANNUAL PERFORMANCE GOAL	**INTERMEDIATE ESTIMATES**
FY 2005: Achieve a 1:1 ratio of non-ARC matching project funds to ARC investment.	**FY 2005:** Achieved a 2:1 ratio.
FY 2006: Achieve a 1:1 ratio of non-ARC matching project funds to ARC investment.	**FY 2006:** Achieved a 2:1 ratio.

Note: This was not a performance goal reported in the PAR prior to FY 2005, so there are no data prior to FY 2005 for comparison.

In FY 2006, ARC Goal 2 grant funds of $13,232,579 attracted $31,583,859 in matching project funds from public and other sources and $25,000 in non-project leveraged private investment.

Funding and Leveraged Private Investments for Goal 2 Projects in Fiscal Year 2006



Targeting Goal

The targeting performance goal for Goal 2 projects is the percentage of funds targeted to distressed counties or areas.

Annual performance goal for FY 2006: Direct 50 percent of grant funds to projects that benefit distressed counties or areas.

Results for FY 2006: In FY 2006, 61 percent of all ARC nonhighway project funds were directed to projects that benefit distressed counties or areas. ARC tracks the percentage of funds targeted to distressed counties separately in goals 1, 2, and 3 for management purposes only.

Targeting Goal: Direct 50 Percent of Goal 2 Grant Funds to Distressed Counties or Areas	
ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES*
FY 2005: Direct 50% of grant funds to projects that benefit distressed counties or areas.	**FY 2005:** Directed 60% of Goal 2 funds.
FY 2006: Direct 50% of grant funds to projects that benefit distressed counties or areas.	**FY 2006:** Directed 71% of Goal 2 funds.

Note: This was not a performance goal reported in the PAR prior to FY 2005, so there are no data prior to FY 2005 for comparison.
** Includes projects that primarily benefit distressed counties or areas, and projects where most beneficiaries of the project are in distressed counties or areas.*

Project Validation Sampling

In FY 2006, members of ARC's field validation team surveyed 17 FY 2003 and FY 2004 projects funded under Goal 2 to compare estimated and actual results.

Number of Projects Surveyed	Projected Number of Students/Trainees with Improvements	Actual Number of Students/Trainees with Improvements	Results Achieved
17	575	679	118%

As shown above, the projects achieved 118 percent of projected results for students/trainees with improvements.

Project Evaluation: Final Results

Vocational Education and Workforce Training

In FY 2002, the Appalachian Regional Commission issued the report *Evaluation of the Appalachian Regional Commission's Vocational Education and Workforce Training Projects*, prepared by the Westat Corporation. The study examined 92 projects started and completed during the 1995–2000 period. This sample constituted about one-third of the project universe during the period, after adjusting for continuation projects. A mail survey collected data on project implementation, monitoring, and impact. In addition, five case study site visits were conducted. A two-tier sample of projects was developed to assess the impact before and after full implementation of ARC's performance measurement program in FY 2000. Tier 1 selected 67 projects from the 1995–1999 period; Tier 2 selected 25 projects funded in 2000.

Types of Performance Measured

- Skills obtained; e.g., projects helped participants improve basic skills, academic skills, vocational skills, or employability habits.
- Individual employment gains; e.g., projects helped laid-off workers or underemployed obtain new work; helped those without full-time job experience gain initial full-time jobs; helped employed individuals increase skills, responsibilities, wages, and position.

Project Outcomes

- Forty-five percent of the Tier 1 (1995–1999) projects achieved all of their objectives; 27 percent achieved all but one objective.
- Only 9 percent (six projects) achieved fewer than half of their objectives.
- The vast majority of projects had quantifiable outcome measurements, but a higher proportion of the Tier 2 (2000) projects had clear and quantifiable outcomes.

Education

A March 2006 evaluation of the ARC–Oak Ridge National Laboratory Math-Science-Technology Summer Institute by the Academy for Educational Development assessed the effectiveness of the program in encouraging more Appalachian high school students to continue their studies beyond high school and to pursue careers in science, technology, engineering, and math. It also assessed how the program helped participating high school teachers raise the level of math, science, and technology instruction in their schools. The findings are based on data collected from eight groups of participants attending the summer institute between 1997 and 2004.

The study found that participation in the summer institute influenced 24 percent of students to take more science classes and 22 percent to take more math classes when they returned to high school. Slightly more than half the students reported that their summer institute experience reinforced prior decisions about the science and math courses they had already chosen to take. Students also reported that the summer institute had reinforced their intention to go to college and reduced some of the barriers. Ninety-six percent of the student participants who had graduated from high school at the time of the survey had continued their formal education beyond high school, with more than half receiving degrees in science, technology, engineering, or math fields. Of the 23 students who attended the institute in 1997 and 1998, all reported attending college: 26 percent had attended college but had not earned a bachelor's degree, 39 percent had earned a bachelor's degree, and 35 percent had earned a bachelor's degree and begun graduate work.

Participating teachers reported that they had incorporated activities and approaches learned at the summer institute into their classrooms: 77 percent reported that they drew on the experience for explanations and examples; 52 percent reported that they drew on the experience for classroom demonstrations; and 50 percent reported that they had incorporated new knowledge into their lab experiments.

In fiscal year 2001, ARC issued the report *Evaluation of the Appalachian Regional Commission's Educational Projects*, by the Westat Corporation, which assessed the implementation and impact of 84 education projects funded by ARC during the 1990s. The study examined the type of activities projects used to enhance learning opportunities, the extent to which these activities were implemented, the accomplishments associated with these activities, and whether or not the projects were able to sustain themselves beyond the ARC grant period. Of particular interest was the extent to which projects achieved the outcomes set forth in their original proposals to ARC. In addition, site visits were conducted at eight projects that had successfully provided community residents with a new or enhanced educational service.

Types of Performance Measured

- Increased educational attainment; e.g., increased high school completion rates and college-going rates.
- Increased economic well-being; e.g., improved job skills; increased wages.
- Increased family/individual well-being; e.g., improved family stability.
- Reduced barriers; e.g., decreased student behavior problems; increased access to educational support.

Project Outcomes

Study findings indicate that most of the projects in the study reached those segments of Appalachia that are most economically disadvantaged or geographically isolated. Most projects were successful in achieving the outcomes they set forth in their original requests for ARC support:

- Almost three-quarters of projects reported that results met or exceeded original expectations;
- Just under half met expectations;
- Nearly one-third achieved more than planned; and
- Thirteen percent achieved less than planned.

College-Going Rates

In September 2005, ARC awarded a contract to the University of Kentucky for an analysis of the college-going and perseverance rates in Appalachia. The report, which will be completed in the fall of 2006, will gather and compare data on college-going rates and college-going plans for schools participating in the Appalachian Higher Education (AHE) Network with Appalachian averages. Using statistical techniques, the report will then assess the impact of AHE Network programs on college-going rates at participating schools.

ARC launched the AHE Network in 1999 to raise the levels of educational attainment in Appalachia. The network provides funding, training, and assistance to participating high schools for programs to encourage students to obtain a post-secondary education. Between 1999 and 2004, more than 11,000 students participated in the programs. Currently, AHE Network centers operate in Alabama, Georgia, Kentucky, Mississippi, North Carolina, Ohio, Tennessee, Virginia, and West Virginia.

Goal 3: Develop and Improve Appalachia's Infrastructure to Make the Region Economically Competitive

ARC will address the lack of adequate water and sewer systems and telecommunications systems and services in the Region, and will build partnerships to address the critical issue of intermodal connections to improve access to the global market.

Strategic Objective 3.1: Foster Civic Entrepreneurship. This objective supports selected strategies including building capacity to address infrastructure challenges, partnerships and regional efforts, local community infrastructure projects, and strategic planning for capitalizing on ADHS economic development opportunities.

Strategic Objective 3.2: Build and Enhance Basic Infrastructure. This objective supports selected strategies including strategic investments to leverage other funding for water and wastewater systems and expansion of safe, affordable housing stock.

Strategic Objective 3.3: Increase the Accessibility and Use of Telecommunications Technology. This objective supports selected strategies including strategic telecommunications infrastructure, information technology training, e-commerce, telemedicine, and combining telecommunications development with other public infrastructure development.

Strategic Objective 3.4: Build and Enhance Environmental Assets. This objective supports selected strategies including brownfield redevelopment in industrial areas and redevelopment of mine-impacted land, eco-industrial development, and planning and development policies promoting good stewardship of natural resources.

Strategic Objective 3.5: Promote the Development of an Intermodal Transportation Network. This objective supports selected strategies including intermodal economic development studies, inland port location analysis, regional forums, and organizational development to support intermodal connectivity.

Performance Goals and Measures

Goal 3 is aligned with the annual performance goals listed under "infrastructure." (See page 41.) All projects with these annual performance goals are in Goal 3.

Key Outcome Goal

The strategic plan describes the major outcome measure in the "infrastructure" category as the number of households served with new or improved water or sewer infrastructure. The key outcome for Goal 3 projects is referred to as "households served."

Annual performance goal for FY 2006: Provide 20,000 households with basic infrastructure services.

Results for FY 2006: Exceeded goal. In addition to the numbers recorded below, ARC in FY 2006 funded water storage tank construction and improvement projects that will serve a total of 1,158 households.

Outcome Goal: Provide 20,000 Households with Basic Infrastructure Services

ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES
FY 2003: 25,000 Households Served	FY 2003: 23,194 Households Served
FY 2004: 20,000 Households Served	FY 2004: 40,172 Households Served*
FY 2005: 20,000 Households Served	FY 2005: 21,255 Households Served*
FY 2006: 20,000 Households Served	**FY 2006: 30,148 Households Served***

**Intermediate estimates for FY 2004, 2005, and 2006 do not include households served by ARC-funded water storage tank construction and improvement projects.*

Matching Goal

The matching performance goal for Goal 3 projects is the ratio of non-ARC project matching funds to ARC investment.

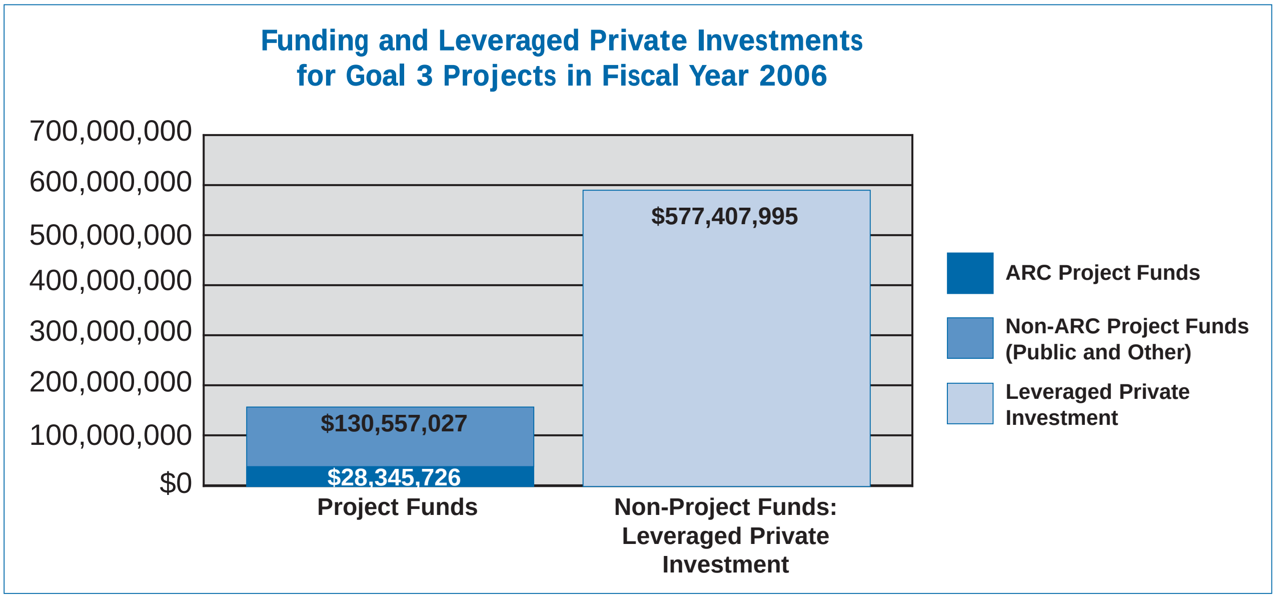
Annual performance goal for FY 2006: Achieve a 2:1 ratio of non-ARC matching funds to ARC investment.

Results for FY 2006: Exceeded goal.

Matching Goal: Achieve a 2:1 Ratio of Non-ARC Matching Project Funds to ARC Investment	
ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES
FY 2005: Achieve a 2:1 ratio of non-ARC matching project funds to ARC investment.	**FY 2005:** Achieved a 4:1 ratio.
FY 2006: Achieve a 2:1 ratio of non-ARC matching project funds to ARC investment.	**FY 2006:** Achieved a 5:1 ratio.

Note: This was not a performance goal reported in the PAR prior to FY 2005, so there are no data prior to FY 2005 for comparison.

ARC FY 2006 Goal 3 grant funds of $28,345,726 attracted $130,557,027 in matching project funds from public and other sources, and $577,407,995 in non-project leveraged private investment.



Targeting Goal

The targeting performance goal for Goal 3 projects is the percentage of funds targeted to distressed counties or areas.

Annual performance goal for FY 2006: Direct 50 percent of grant funds to projects that benefit distressed counties or areas.

Results for FY 2006: In FY 2006, 61 percent of all ARC nonhighway project funds were directed to projects that benefit distressed counties or areas. ARC tracks the percentage of funds targeted to distressed counties separately in goals 1, 2, and 3 for management purposes only.

Targeting Goal: Direct 50 Percent of Goal 3 Grant Funds to Distressed Counties or Areas	
ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES*
FY 2005: Direct 50% of grant funds to projects that benefit distressed counties or areas.	**FY 2005:** Directed 63% of Goal 3 funds.
FY 2006: Direct 50% of grant funds to projects that benefit distressed counties or areas.	**FY 2006:** Directed 70% of Goal 3 funds.

Note: This was not a performance goal reported in the PAR prior to FY 2005, so there are no data prior to FY 2005 for comparison.
** Includes projects that primarily benefit distressed counties or areas, and projects where most beneficiaries of the project are in distressed counties or areas.*

Project Validation Sampling

In FY 2006, members of ARC's field validation team surveyed nine FY 2003 and FY 2004 projects funded under Goal 3 to compare estimated and actual results.

Number of Projects Surveyed	Projected Number of Households Served	Actual Number of Households Served	Results Achieved
9	6,024	6,013	100%

The projects surveyed achieved 99.8 percent of projected results for households served. The performance goal was set at an approximate target level, and the deviation from that level was slight. There was no effect on overall program or activity performance.

Project Evaluation: Final Results

Infrastructure and Public Works

In FY 2006, the Brandow Company and Economic Development Research Group completed a draft of the ARC report *Evaluation of the Appalachian Regional Commission's Infrastructure and Public Works Program Projects, 2006*. The evaluation examined a sample of 104 completed ARC infrastructure projects that had been funded between 1998 and 2004, including industrial parks and other industrial sites, access roads, business incubators, water and sewer systems, housing, and telecommunications. The sample projects represent 25 percent of the completed infrastructure projects that had been funded during this period. Of the 104 projects sampled, 78 were non-residential economic development projects; 22 were community development projects, including residential water and sewer projects; and four were housing projects. The number of infrastructure projects funded during this period accounted for about 49 percent of ARC area development projects.

Findings of the evaluation included the following:

- *Jobs.* The sampled projects, which received $29.4 million in ARC funding, directly produced 17,795 new jobs and retained 9,580. In addition, an estimated 25,341 new jobs were created by the indirect effects of the project. ARC funds created an average of one new direct job for every $1,652 of ARC investment. On average, industrial parks created 1,086 jobs per project; commercial water and sewer improvements created 304 jobs per project; business incubators created 271 jobs per project; telecommunications created 230 jobs per project; and access roads created 212 new jobs per project.

- *Personal Income.* The new jobs created or retained by these projects led to an increase of $638 million annually in new wages for the jobs created directly by the projects, $325 million annually in wages for retained jobs, and another $692 million in wages from indirect jobs.

- *Tax Revenue.* The new projects yield $13.3 million per year in state income tax revenue, $16.5 million per year in state and local sales tax revenue, and $14.2 million per year in local property tax revenue. The total of annual state income tax and local property tax revenue almost equals the amount of the ARC investment.

- *Private Investment.* The new projects have leveraged total private-sector investment of $1.7 billion: $947 million in direct private non-project investment and $753 million in induced non-project private investment.

Water and Sewer Infrastructure Gaps Study

In August 2005, ARC issued the report *Drinking Water and Wastewater Infrastructure in Appalachia: An Analysis of Capital Funding and Funding Gaps* by the University of North Carolina Environmental Finance Center. This report analyzes the conditions of water and wastewater services in the Appalachian Region and attempts to assess the financial requirements and strategies available to improve the quality of drinking water and wastewater services in the Region, particularly in the areas that face chronic economic distress and clear deficiencies in these services. The analyses are based on major data sources compiled by the Environmental Protection Agency (EPA), the U.S. Geological Survey, and the U.S. Census Bureau, as well as private credit-rating agencies. In addition, detailed case studies are developed to examine specific community-level services, issues, and practices.

The analysis shows that on average, community water systems in distressed counties have greater needs per person served ($497) than systems in non-distressed counties ($191–$353). Based on an analysis of EPA needs surveys data, communities in Appalachia report approximately $26 billion in water and wastewater infrastructure needs. However, there is ample evidence that communities will actually have to pay far more than this to ensure services that meet basic public health and environmental standards since the estimate does not include the additional funds needed to address operation and maintenance costs or the thousands of substandard and failing individual wells and on-site sanitation systems (septic systems to straight pipes). Including these other factors could raise the total capital needs to the range of $35 billion to $40 billion.

The study also demonstrates that needs identified by the EPA's *Clean Watersheds Needs Survey* were significantly and positively related to the distribution of water and wastewater infrastructure funding in Appalachia. The relationship between funding distributions and National Pollutant Discharge Elimination System compliance violations was significant and positive. Likewise, the relationships between funding distributions and waterborne diseases were significant and positive. The relationship between septic system density and funding, although significant, was negative; on average, counties with higher densities of septic systems received less public funding than counties with lower densities of septic systems. This latter finding is likely attributable to a fundamental characteristic of infrastructure funding: it tends to flow to communities with existing large public systems.

Goal 4: Build the Appalachian Development Highway System to Reduce Appalachia's Isolation

Some of the Region's most persistent economic problems stem from geographic isolation brought about by mountainous terrain. The Appalachian Development Highway System (ADHS) was designed to connect Appalachia to the national interstate system and provide access to areas within the Region as well as to markets in the rest of the nation. The strong partnership of ARC, the U.S. Department of Transportation (U.S. DOT), and state departments of transportation will continue to oversee the planning and construction of the Appalachian Development Highway System. ARC will work to identify and overcome barriers to the timely completion of the ADHS.

Strategic Objective 4.1: Foster Civic Entrepreneurship. This objective supports selected strategies including local and multi-jurisdictional forums to reduce barriers to completion of the ADHS and collaboration among state departments of transportation, the U.S. DOT, and other state and federal agencies involved in economic development.

Strategic Objective 4.2: Promote On-Schedule Completion of the ADHS. This objective supports selected strategies including working with federal and state DOTs to identify and overcome barriers in the location-study and design phases, supporting efforts to obligate the maximum amount of the annual appropriation for ADHS construction, accelerating construction of final phases, and promoting development that preserves cultural and natural resources of the Region while enhancing economic opportunity.

Strategic Objective 4.3: Coordinate Work on ADHS State-Line Crossings. This objective supports selected strategies including coordination of technical information, funding disbursements, and construction scheduling between adjoining states to complete state-line crossings of ADHS corridors.

Performance Goal and Measures

Goal 4 is aligned with the annual performance goal listed under "highways." (See page 41.)

Key Outcome Goal

The strategic plan describes the major outcome measure in "highways" category as the number of miles of the ADHS opened to traffic. The key outcome for Goal 4 projects is referred to as "miles opened to traffic."

> **Annual performance goal for FY 2006:** Open 25 miles of the ADHS to traffic.
>
> **Result for FY 2006:** Exceeded goal. At the end of FY 2006, a total of 2,528.3 miles, or 81.8 percent, of the 3,090 miles authorized for the ADHS were open to traffic, and 116.8 more were under construction. Another 152.7 miles were in the final design or right-of-way acquisition phase, and 292.3 miles were in the location study phase.

Outcome Goal: Open 25 Miles of the ADHS to Traffic	
ANNUAL PERFORMANCE GOAL	INTERMEDIATE ESTIMATES*
FY 2005: 25 miles of the ADHS opened to traffic.	**FY 2005:** 19.3 miles of the ADHS opened to traffic.
FY 2006: 25 miles of the ADHS opened to traffic.	**FY 2006:** 30.8 miles of the ADHS opened to traffic.

Note: This was not a performance goal reported in the PAR prior to FY 2005, so there are no data prior to FY 2005 for comparison.

Project Validation Sampling

The ADHS program is not funded through ARC's appropriation. Therefore, ARC validation visits are not performed on the ADHS. Instead, ARC staff prepare a status report each year on the development of the ADHS based on information from the Federal Highway Administration and state departments of transportation.

Project Evaluation: Final Results

ADHS Economic Impact

In October 2006, Economic Development Research Group completed the study *The Impact of Highway Investments on Economic Growth in the Appalachian Region, 1969–2000: An Update and Extension of the Twin County Study*. The report updated the 1995 "twin county" study by Andrew Isserman and Terance Rephann, which found statistically significant differences in economic growth rates between Appalachian counties and their non-Appalachian counterparts during the years 1965 to 1991, and also found that counties served by the Appalachian Development Highway System had higher rates of income, population, and per-capita income growth than similar non-Appalachian counties. The new study extended the analysis to the year 2000 and assessed whether the amount, characteristics, and timing of ADHS investments can explain some of the differences in economic outcomes. The study, which used survey-based data, showed that there is a robust statistical link between ADHS investments and differential income and earnings growth between Appalachian counties and similar non-Appalachian counties.

The key finding of the study was that Appalachian counties with open ADHS segments had higher income growth than their twin counties, with the ADHS counties posting 200 percent more income growth over the 1969–2000 period. In comparison, income growth for all Appalachian counties during the period was 131 percent higher than income growth in the non-Appalachian twin counties.

The overall performance during this period of the Appalachian counties studied, however, should not mask the struggles that some areas of the Region have experienced: performance of the northern Appalachian counties lagged behind the non-Appalachian twins', and, across the Region, the performance of smaller metropolitan areas fell far behind their non-Appalachian counterparts'.

In 1998, ARC published a research report undertaken by Wilbur Smith Associates to conduct a comprehensive study of the economic benefits of the ADHS. *Appalachian Development Highways Economic Impact Studies* focused on the contributions of completed portions of 12 corridors within the system. The portions studied totaled 1,417.8 miles and traversed 165 counties. The objective of the study was to quantify regionally specific economic development impacts (as measured by jobs, wages, and value added) as well as impacts on travel efficiencies. The study found that the completed sections of the 12 corridors had created jobs (an estimated net increase of 16,000 jobs by 1995) and showed a solid return on investment ($1.18 in travel-efficiency benefits and $1.32 in economic benefits gained for each dollar invested in construction and maintenance). The study concluded that the ADHS can take credit for highway-related growth in Appalachia and demonstrated that the completed portions of the ADHS have been a good investment.

In FY 2006, ARC commissioned Cambridge Systematics to undertake a study on the economic impact of completing the Appalachian Development Highway System, a large-scale study that will have a broader scope than the Wilbur Smith Associates' 1998 report. In addition to estimating the impact of newly completed sections of 29 ADHS corridors, the study will project the economic development benefits of completing the entire Appalachian Development Highway System and linking it with the interstate highway system and key state routes. The study will estimate the impact on business site location, roadside business, tourism, and residential site development, and the competitive advantage to local industries of being located on completed ADHS sections. The study will also provide quantitative estimates of benefits arising from improved access to domestic and international markets, as well improved commuting and labor force mobility. The draft study is expected to be completed in the fall of 2007.

Performance Report

SUMMARY OF ACHIEVEMENTS

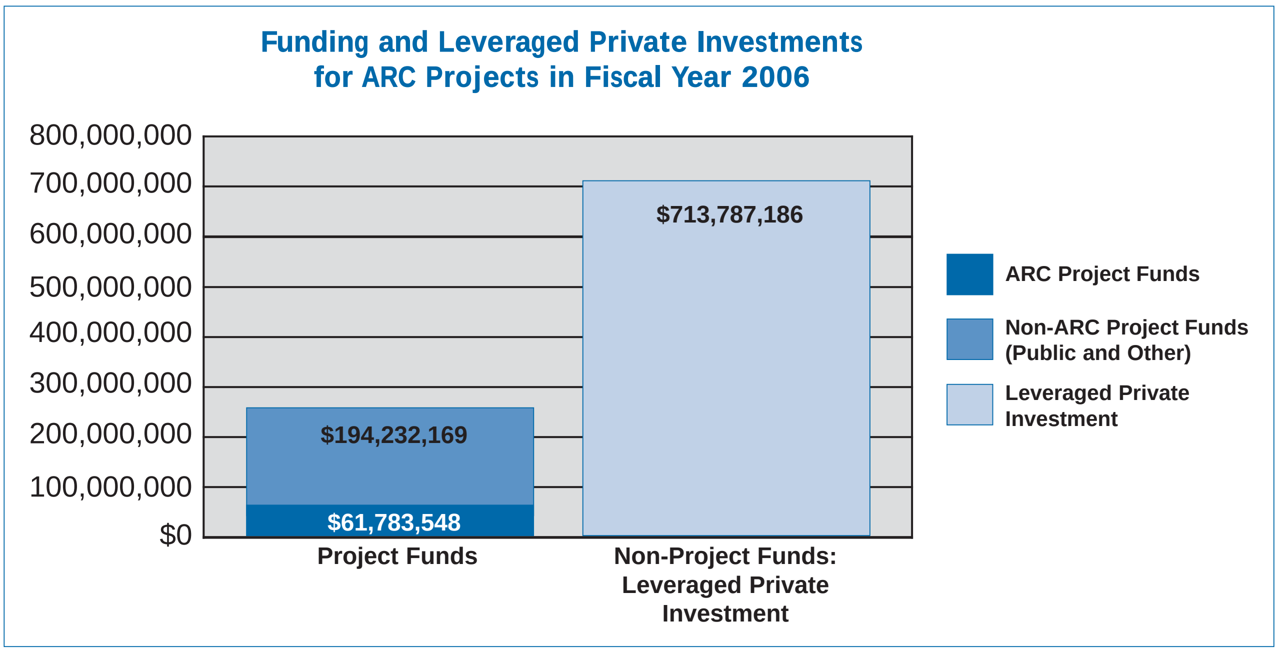
Performance Goals and Results for FY 2006 Projects

ANNUAL PERFORMANCE GOAL	FISCAL YEAR 2006 INTERMEDIATE ESTIMATES	RESULTS ACHIEVED
Jobs and Income		
Key Outcome Goal: 20,000 jobs created or retained	28,866 jobs created or retained	Exceeded goal
Leveraging Goal: Achieve a 4:1 leveraged private investment to ARC investment ratio for projects in Goal 1	Achieved a 7:1 ratio	Exceeded goal
Targeting Goal: Direct 50% of grant funds to benefit distressed counties or areas for projects in Goal 1	Directed 46% of funds*	Met 92% of goal
Competitiveness		
Key Outcome Goal: 20,000 students/trainees with improvements	17,578 students/trainees with improvements	Met 88% of goal
Matching Goal: Achieve a 1:1 non-ARC to ARC investment ratio for projects in Goal 2	Achieved a 2:1 ratio	Exceeded goal
Targeting Goal: Direct 50% of grant funds to benefit distressed counties or areas for projects in Goal 2	Directed 71% of funds*	Exceeded goal
Infrastructure		
Key Outcome Goal: 20,000 households served	30,148 households served	Exceeded goal
Matching Goal: Achieve a 2:1 non-ARC to ARC investment ratio for projects in Goal 3	Achieved a 5:1 ratio	Exceeded goal
Targeting Goal: Direct 50% of grant funds to benefit distressed counties or areas for projects in Goal 3	Directed 70% of funds*	Exceeded goal
Highways		
Key Outcome Goal: 25 miles of the ADHS opened to traffic	30.8 miles of the ADHS opened to traffic	Exceeded goal

** ARC exceeded its overall goal of investing 50% of total ARC nonhighway funds in projects that benefit distressed counties or areas. Project funds are included if the project* primarily *or* substantially *benefits distressed counties or areas.*

LEVERAGING, MATCHING, AND TARGETING SUMMARY for All ARC Nonhighway Projects Fiscal Year 2006		
Leveraged private investment	$713,787,186	12:1 ratio of leveraged private investment to ARC investment
Non-ARC matching project funds	$194,232,169	3:1 ratio of non-ARC project investment to ARC project investment
ARC project funds targeted to distressed counties or areas	$37,955,658*	61% of total ARC project funds directed to projects that benefit distressed counties or areas*

**Project funds are included if the project* primarily *or* substantially *benefits distressed counties or areas.*



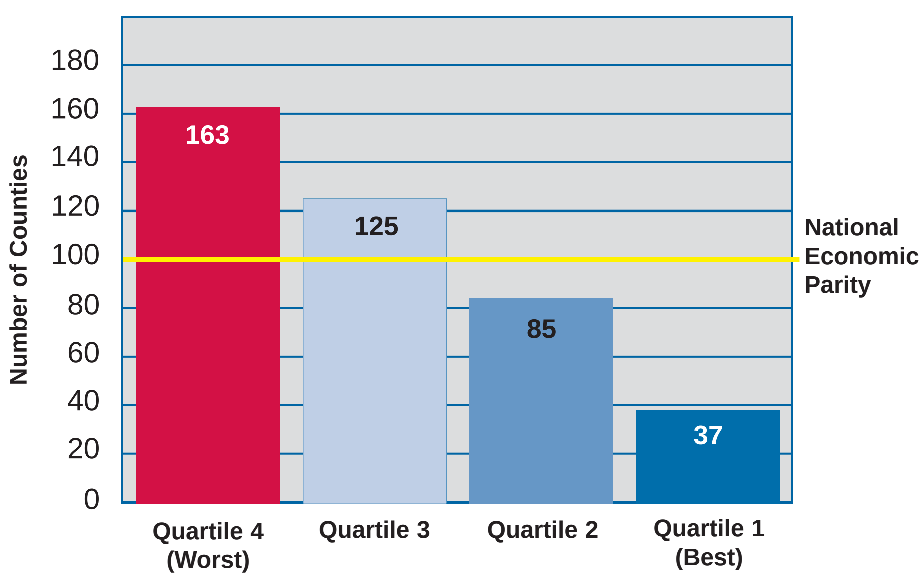
MEASURING PROGRESS TOWARD THE ARC VISION

ARC's overall vision for Appalachia is for the Region to achieve socioeconomic parity with the nation. One way to measure progress of the Region toward this vision is to look at the economic status of Appalachian counties in comparison with all counties nationwide.

In order to provide a single unified measure of regional progress and economic change, ARC has developed an index to track improvement over time. Drawing on the three variables ARC uses annually to determine the economic status of the Region's 410 counties, staff have developed a national composite index of distress. The three variables (three-year annual unemployment, per-capita market income, and decennial poverty rates) are applied to each county in the nation and compared with national averages. The resulting values are summed, averaged, and ranked to create four quartiles with approximately equal number of counties in each group.

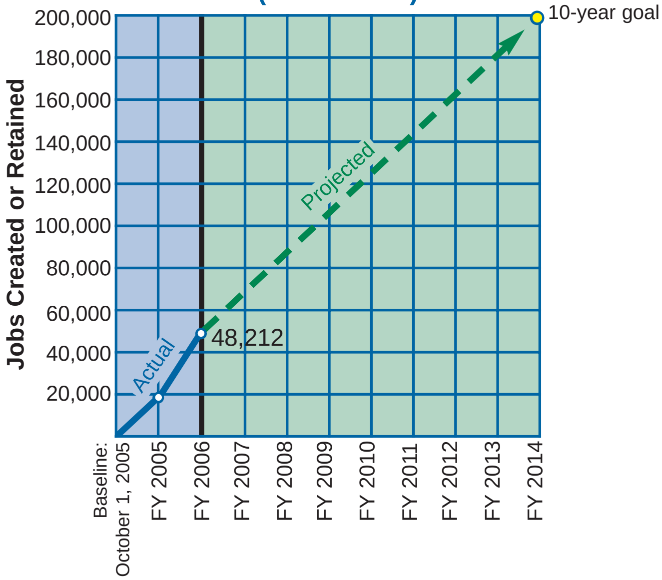
Using this index, ARC can compute annually the number of Appalachian counties in each quartile, as well as an overall regional index value. This can be directly compared with the national index value to measure progress. In addition, progress can be clearly measured by reductions in the number of Appalachian counties in the worst quartile. As the figure below shows, despite a large reduction in the number of distressed counties in Appalachia over the past several years, the Region continues to have a disproportionately high number of counties with underperforming economies and a smaller share of counties with strong economies, compared with the rest of the nation.

Number of Appalachian Counties by Economic Status, 2006



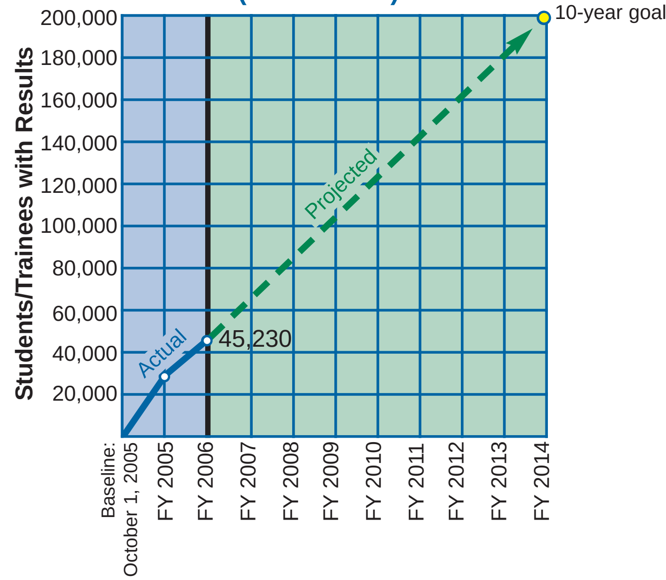
Progress toward ARC Strategic Plan Ten-Year Performance Goals
Fiscal Years 2005–2014

Goal 1: Jobs Created or Retained (Cumulative)



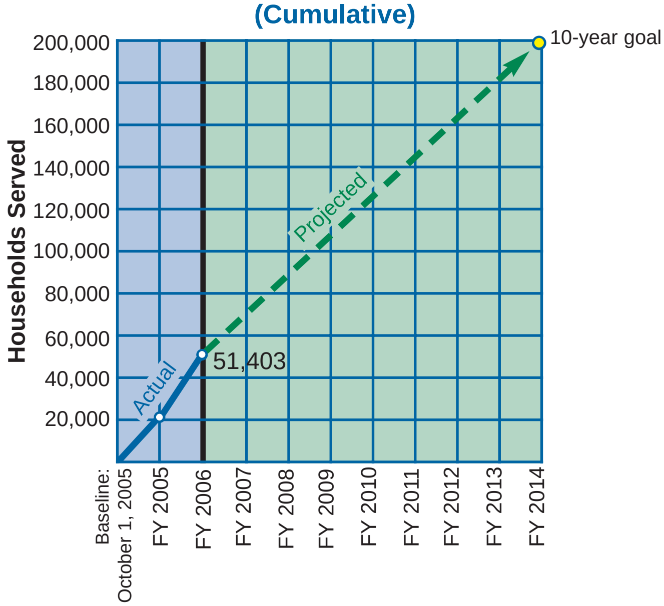
Ten-Year Performance Goal:
200,000 jobs will be created or retained.

Goal 2: Students/Trainees with Results (Cumulative)



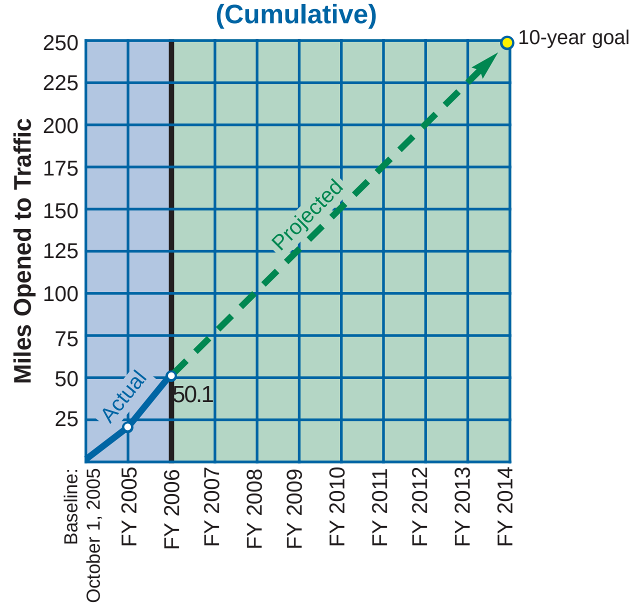
Ten-Year Performance Goal:
200,000 citizens will benefit from enhanced education and job-related skills.

Goal 3: Households Served (Cumulative)



Ten-Year Performance Goal:
200,000 households will be served with new or improved water and sewer infrastructure.

Goal 4: ADHS Miles Opened to Traffic (Cumulative)



Ten-Year Performance Goal:
250 miles of the Appalachian Development Highway System will be opened to traffic.