

Program Evaluation of ARC's Tourism, Cultural Heritage and Natural Asset-Related Projects

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The Appalachian Regional Commission



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EXECUTIVE SUMMARY

The Regional Technologies Strategies (RTS) project team, including Mt. Auburn Associates and Appalachian State University, was charged with examining and critiquing the Appalachian Regional Commission's (ARC) investment in Tourism, Cultural Heritage and Natural Asset-Related projects with a specific focus on how those projects were evaluated. The projects were examined within the context of the ARC's Strategic Plan entitled *Moving Appalachia Forward: ARC Strategic Plan, 2005–2010*.

- ✚ Goal 1: Increase job opportunities and per capita income in Appalachia to reach parity with the nation
- ✚ Goal 2: Strengthen the capacity of the people of Appalachia to compete in the global economy
- ✚ Goal 3: Develop and improve Appalachia's infrastructure to make the Region economically competitive
- ✚ Goal 4: Build the Appalachian Development Highway System to reduce Appalachia's isolation

Goals 1, 2 and 3 are most relevant to the tourism projects analyzed here. These projects were funded to directly and indirectly improve the ability of ARC residents to build sustainable economic futures based on the heritage, history, beauty and internal entrepreneurial resources of the region.

We were asked to look at the portfolio of funded projects, how they were evaluated under ARC guidelines, and examine the projects' reported impacts. From there we examined how well the evaluation guidelines helped grant recipients *tell the story* of the projects' successes and failures. We then considered ways in which the evaluation procedures and rules could be modified to help grant recipients and ARC improve the evaluation, use evaluation to improve the progress of on-going projects and finally give a more robust, holistic and complete picture of the impacts these important programs have on Appalachian people and their communities.

At the same time RTS was asked by the ARC and the Ford Foundation to take our analysis to a next step and examine how the projects impact not just direct economic success but how they simultaneously positively or negatively impact social and environmental goals as well. This broader perspective, sometimes called *sustainable development* or the *Triple Bottom Line (TBL)* is relevant to the types of economic development projects typically funded by ARC within the tourism program. Consideration of TBL issues is not an explicit element of the ARC 2005-2010 Strategic Plan but is embedded within the strategies that follow from its four main goals.

ARC and the Ford Foundation agreed to informally use these simultaneous research efforts to more fully and systematically look at how the organizations can improve the lives of the people of Appalachia through efforts that build on their mutual commitment to economic, social and environmental progress. This document embeds some of the TBL work completed by the RTS team.

We look to provide analysis and guidance on evaluating projects to meet the needs of ARC and where appropriate suggest ways that evaluation methods can be modified to reflect the broader vision of ARC as reflected in its Strategic Plan. In particular this report looks at the following questions:

- ✚ Is ARC using the best available metrics?
- ✚ Do the metrics tell ARC what it needs to know to evaluate their programs?
- ✚ Are the metrics easily measured and verified?
- ✚ Do the metrics and evaluations assist recipients in managing their projects?
- ✚ Do the metrics and evaluations provide ARC with the documentation required to substantiate funding requests for its programs?
- ✚ What are recommendations to build a new framework for evaluation?
- ✚ What is TBL and what is its potential application to ARC projects?

PROJECT ANALYSIS

The analysis begins with a portfolio of 132 ARC projects within the Tourism, Cultural Heritage and Natural Asset-Related program. Total project costs were \$28.8 million of which ARC provided \$10.8 million. Reported actual outcomes included 583 job created, 520 jobs retained and 55 new businesses created. The projects were spread amongst all the ARC states.

We analyzed the projects using three main techniques:

- ✚ Two separate surveys: We sent surveys to project managers on two separate occasions. The first on-line survey primarily addressed qualitative metrics while the second survey measured specific results (outputs) and outcomes of the project, as well as impacts across the triple bottom line. The first survey had a response rate of 51 percent while the second had a response rate of 60 percent.
- ✚ Interviews: The project team interviewed representatives from 32 projects. These included both project managers and community “stakeholders.” During the process 93 (32 project managers and 61 stakeholders) individuals were interviewed.
- ✚ Case Studies: For a selection of the projects, project staff conducted detailed case studies. These included site visits to project locations and interviews with both project representatives and community stakeholders.

Survey Results

First Survey

Our initial survey of project managers found a high degree of satisfaction with their projects. Over 86 percent felt that their project had mostly or completely met its goals and two-thirds reported that the project was still significantly in place and use (Figures ES-1 and ES-2).

Figure ES-1. To what extent did the project achieve its goals?

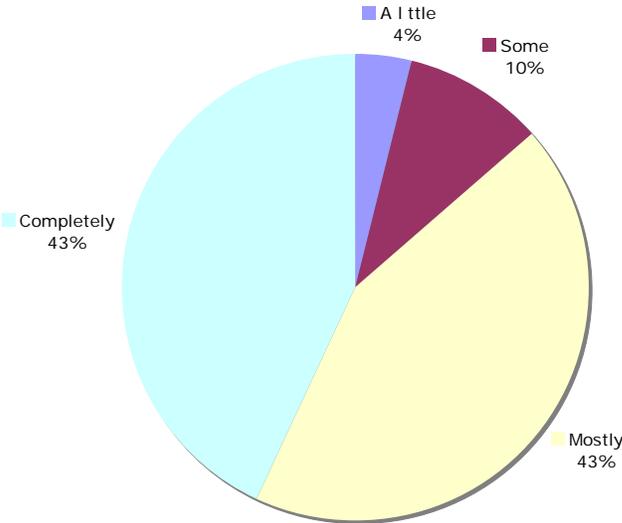
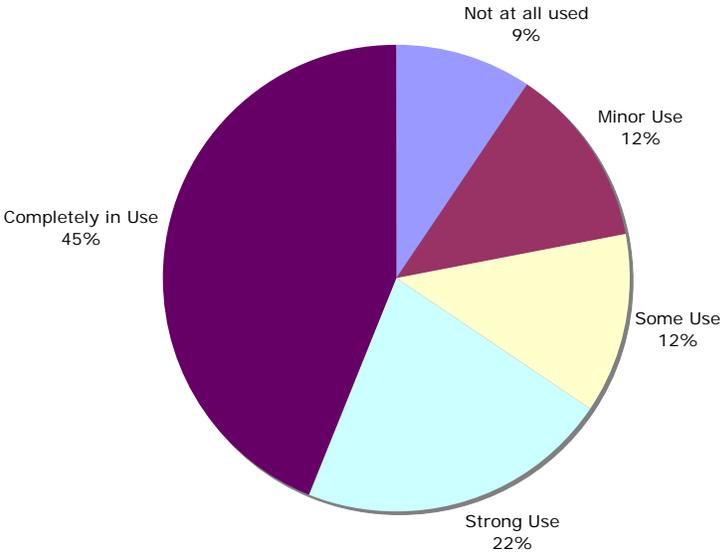


Figure ES-2. To What Extent are the Initiatives in Use?



The greatest service improvements reported on the survey were to 1) tourism attractions, 2) cultural facilities, 3) visitor facilities, 4) small business support and 5) education and training (Figure ES-3). These projects and their services in turn had the most significant impacts on 1) preservation of cultural heritage, 2) tourism revenues, 3) employment, 4) visual landscape and 5) sales of local goods (Figure ES-4).

The survey, for the most part reflected limited impacts to non-economic TBL measures with the exceptions of cultural issues and preservation or improvement of natural and built environments such as visual landscapes.

Second Survey

The primary purpose of the second survey was to measure specific results – outputs and outcomes of the project. Outputs focused on the numbers of individuals, businesses and communities served through the project, the amount of additional funds leveraged by the project, any materials developed through the project, and any programs and plans developed. Outcomes focused more on quantifiable measures of project success e.g. jobs created and retained, businesses improved, communities improved, etc. In all cases, project managers were asked to assign a number value to the project’s impact

Table ES-1 presents the survey results and, where available, comparable data from the ARC project database for *outputs*. The “Reported on Survey” column refers to actual estimated impacts within the categories provided by respondents for their projects. The “Projected Outputs” column refers to the projected outputs for the same projects from the ARC database. We used *projected* instead of *actual* data reported for two reasons. First the *actual* number is provided at project closeout and therefore does not reflect the “three years once the ARC-funded services are delivered or the project is completed.”

Table ES-1. What specific results (outputs) were actually achieved by this project?

Outputs Category	Reported on Survey	Projected Outputs	Ratio Reported to Projected
Participants Served	1,322,520	89,591	14.8
Businesses Served	2,790	2,664	1.0
Nonprofit Entities Served	892	NA	NA
Public Agencies Served	141	NA	NA
Communities Served	880	NA	NA
Visitor Attractions Developed	346	NA	NA
Programs and Plans Developed	474	31*	15.3
Meetings and Events Held	1,236	NA	NA
Promotional Materials Developed	1,405,918	NA	NA

* - Total of "New Programs Developed" and "New Strategic Planned Developed"

NA -- Information not available in ARC project database

Second, it is important to compare the actual numbers to the projections to start to understand whether projects are successful and whether project developers have the expertise and ability to estimate impacts and track actual results. The results from the first survey, our interviews, and the case studies suggest that project managers are concerned about their ability to project and track project impacts.

As reflected in Table ES-1 the 69 projects reflected in the survey demonstrate substantial impacts with the regions they serve. The survey reflects that the projects served many more participants and generated substantially more programs and plans than projected. While this reflects respondents' experience it is likely that the definitions that were used in the original proposals were not the same ones that the respondents used for the survey. This is an important result as it provides more evidence that grantees do not have robust or consistent understanding of the measures that ARC focuses on. Unless everyone is "on the same page" it is unlikely that reported results can be meaningfully compared to the original projections.

The "Ratio Reported to Projected" can provide an effective and succinct measure of project effectiveness if the definitions used are consistent. In the three instances where survey output answers can be compared to the ARC database, two categories, "participants served" and "programs and plans developed", likely reflect definitional inconsistency. It is unreasonable to expect that the projects will serve, for example, 15 times more participants than projected. For "Businesses Served" the ratio suggests that the project leaders were able to make reasonable estimates of this measure and deliver outputs.

Table ES-2. Who actually benefited from this project? What results were actually achieved?

Outcomes Category	Reported on Survey	Projected Outcomes	Ratio Reported to Projected
Participants Improved	363,594	NA	NA
Businesses Improved	872	NA	NA
Nonprofit Services Improved	190	NA	NA
Public Services Improved	111	NA	NA
Communities Improved	502	NA	NA
Leveraged Private Investment	\$19,343,116	\$47,511,751	0.4*
Jobs Created	1,257	1,783	0.7
Jobs Retained	512	306	1.7
Businesses Created	110	39	2.8
Businesses Retained	106	NA	NA
Business Sales Increased	\$7,962,073	NA	NA

NA -- Information not available in ARC project database

* Removing a questionable \$30 million leveraged investment projection in a single project results in a ratio of 1.1.

The survey reflects that the projects had substantial positive impacts (outcomes) within the communities they served. For example, from Table ES-1 we see that 2,790 businesses were served (a specific output) in some fashion and that output was a factor in improving 872 businesses (a specific outcome). The survey results for jobs created and retained and businesses created indicates that while these measures are fairly obvious and well understood the ability to project the impacts is not a trivial effort.

In addition to the output and outcome measures, the second survey asked each grant recipient to rate their projects impact on their communities' economic health, on issues of economic competitiveness, on social issues and on the environment. For each category, project managers were asked to state their project's impact on a scale ranging from very negative to very positive. Significantly, on no category did recipients rate their impact as either negative or very negative.

Survey respondents indicated the greatest economic impact coming in three main outputs: Business assets/revenues, public assets/revenues and employment, with all three of these indicators having 67 or 68 percent of respondents showing a positive or very positive impact. Table ES-3 shows the respondents' estimate of economic impact of their projects.

Table ES-3: On a scale from very negative to very positive, how would you rate the impact of your project on the following economic, competitiveness, social and environmental measures?

Answer Options	Very negative	Negative	Neutral	Positive	Very Positive
Population	0.0%	0.0%	56.1%	30.3%	13.6%
Employment	0.0%	0.0%	31.8%	57.6%	10.6%
Personal income	0.0%	0.0%	50.0%	40.9%	9.1%
Household assets/ wealth	0.0%	0.0%	69.7%	24.2%	6.1%
Business assets/ revenues	0.0%	0.0%	31.8%	56.1%	12.1%
Public assets/ revenues	0.0%	0.0%	33.3%	50.0%	16.7%
Job Stability	0.0%	0.0%	50%	43.9%	6.1%
Efficiency	0.0%	0.0%	51.5%	34.8%	13.6%
Productivity of land, labor, energy or capital	0.0%	0.0%	57.6%	31.8%	10.6%
Access to markets	0.0%	0.0%	50.0%	28.8%	21.2%
Civic life and governance	0.0%	0.0%	43.9%	36.4%	19.7%
Health	0.0%	0.0%	65.2%	25.8%	9.1%
Education	0.0%	0.0%	28.8%	43.9%	27.3%
Public safety and access	0.0%	0.0%	71.2%	19.7%	9.1%
Culture, arts, other amenities	0.0%	0.0%	16.7%	36.4%	47.0%
Public services	0.0%	0.0%	57.6%	30.3%	12.1%
Other community assets	0.0%	0.0%	19.7%	48.5%	31.8%
Air & water quality	0.0%	0.0%	78.8%	13.6%	7.6%
Land and natural resources	0.0%	0.0%	47.0%	31.8%	21.2%
Recreational opportunities	0.0%	0.0%	31.8%	25.8%	42.4%

Respondents were also asked to estimate the impact their project on various indicators of a region’s competitiveness, including job stability; efficiency; productivity of land, labor, energy or capital; and, access to markets. In this set of indicators, the responses tended to be more ambiguous, with more than half stating that their project had a neutral impact in each of the four indicators. Increased access to markets had the most positive response, with 21% stating that their project had a very positive impact on the region’s access to markets.

The social measures most positively impacted by the ARC-funded projects tended to be ones in which the increase was an explicit goal. Thus, the fact that 83% of respondents

indicated that they there was a positive impact on culture, arts and other amenities is likely due to the fact that so many projects focused on expanding those very offerings. Similarly, many of the funded projects focused on expanding educational offerings through enhanced training or programs, making the 72% who pointed to a positive or very positive impact on education a more likely result.

The respondents were asked to gauge their impact on a set of environmental indicators. In terms of air and water quality, the fact that none of the respondents believed that their project had a negative impact on the environment is impressive. Since hardly any of the projects had explicit environmental focuses, it is not surprising that the vast majority of respondents thought their project had at best neutral environmental impacts. The indicator in which most respondents assigned a positive or very positive impact was on expansion of recreational opportunities.

Interview Results

As noted above, the RTS team conducted interviews for 32 projects including 32 project managers or directors and 61 stakeholders who saw impacts from their perspective.

The interviews reveal a positive and optimistic attitude about projects, despite having to deal with numerous challenges. Overall, interviews reveal that:

- ✚ The projects would not have been viable without ARC funding and for most the ARC grant started the project;
- ✚ Nearly all project managers reported overall positive relationships with ARC and its staff;
- ✚ A significant number reported that the “jobs created” measure was insufficient to measure the true impact of the project;
- ✚ Some projects acted as a catalyst for environmentally friendly development;
- ✚ Many interviewees reported an improvement in community collaboration; and
- ✚ Most cited that the most difficult challenge or impediment to success had to do with funding

The interviews show that ARC is considered a key partner from both a funding standpoint and as an agency that works with the local grantees in a helpful and respectful way. There were questions raised about cumbersome application and reporting procedures and the inability of the “jobs created” metric to reasonably reflect true project impacts. As one stakeholder remarked, it often seemed that the formula being used was designed for a completely different kind of project.

Lastly, the extensive comments on projects as a catalyst for environmentally friendly development and improvements in community collaboration reflect the role that ARC projects are already serving within the TBL framework.

Figure ES-3. To what extent did the project result in the development, expansion, or enhancement of the following?

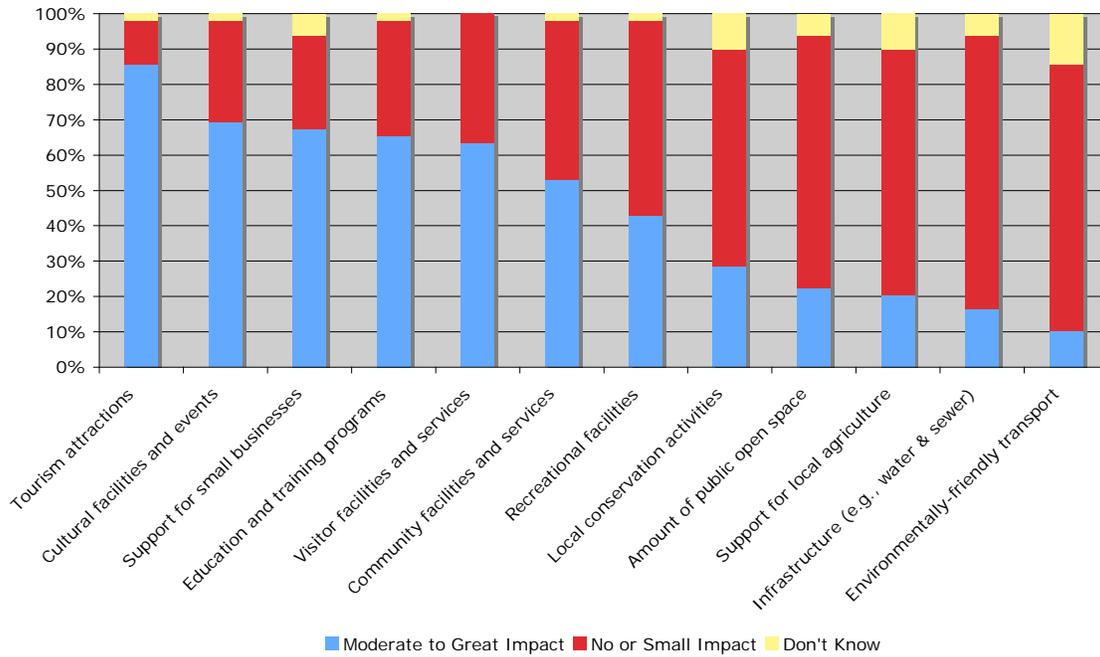
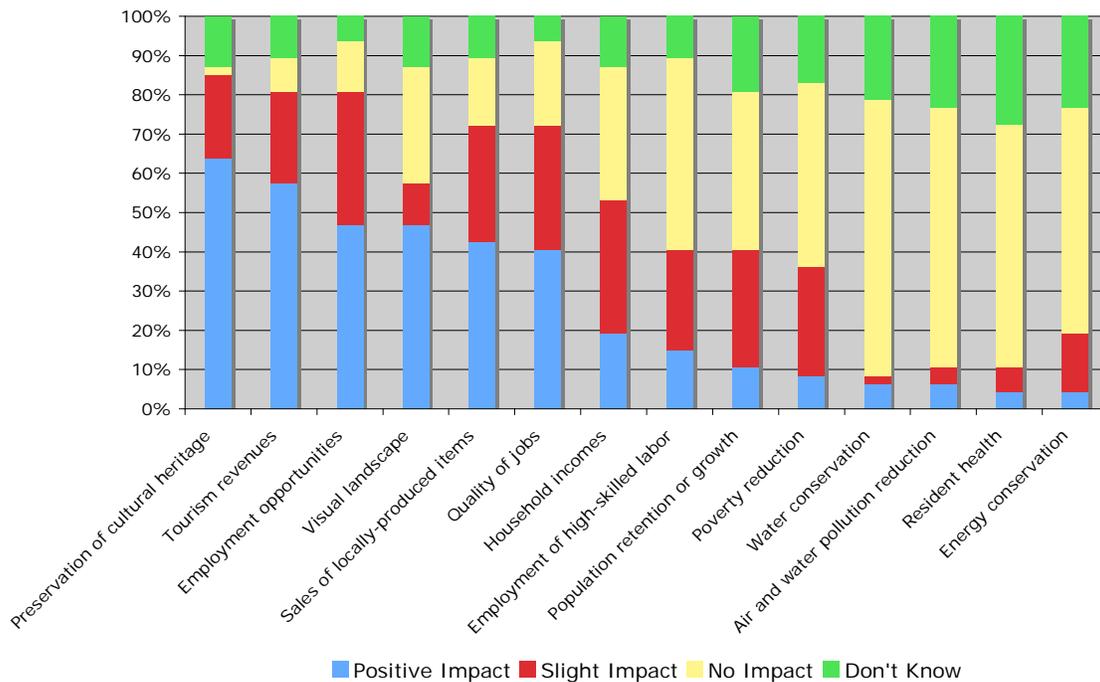


Figure ES-4. What impact did the project have on the following?



Case Study Results

The case studies provide the most nuanced view of the project process. Some of the most thought-provoking impressions include:

- ✦ Projects, by necessity, often evolve from initial conception. Flexibility in project implementation based on changing circumstances has the potential to improve projects and their impacts.
- ✦ The vectors of impact were broader than initially envisioned. Increased collaboration and spin-off projects were among the areas where unforeseen positive were found.
- ✦ Impacts are often difficult to track, estimate and justify. There are a number of reasons for this including technical challenges, lack of grantee expertise in data collection and evaluation, and resource shortages.
- ✦ Local and regional politics and relationships can have significant positive and negative impacts. In some cases, potential partners did not collaborate lessening the potential impact of the project.
- ✦ Project proponents often felt the measured project metrics did not reflect the most important impacts of the project.
- ✦ There are often un-measured spillover and synergy impacts from projects. This is particularly evident in the Crooked Road region of southwest Virginia where the state and ARC have embarked on a strategic series of projects that have helped create a creative cluster.
- ✦ As in the interviews, we were told that many projects had impacts on the social and environmental metrics of TBL even though the projects had not been planned to affect these elements.

Clearly the excellent working relationship between ARC and its grantees bodes well for developing and implementing positive improvements to the evaluation process. This positive and trusting relationship is a platform for positive and collaborative enhancement. Project grantees will be a key element in efforts to improve the evaluation process.

ESTIMATING IMPACTS

The quantitative portion of the second survey combined with the full universe of projects in the ARC database provides a structured method to estimate the overall impacts of the tourism, cultural heritage and natural asset-related portfolio of projects funded by ARC. This survey enabled us to collect data from project managers in a way that mostly avoids the problem of the estimated impacts provided at project closeout. The final report submitted to ARC at the completion of a project is required to estimate “actual” impacts. The estimates are supposed to include impacts going forward three years under the correct assumption that impacts normally take time to occur after a project is completed. The survey strongly suggests that under these circumstances the managers focus more on present conditions, not three years out, and appear to vastly underestimate project impacts.

In our survey, the project managers were able to look back at their projects after more time had elapsed and projects had had a chance to mature and generate impacts within their communities. When we compare the survey estimates which are based on a longer time horizon we find that the estimated impacts are much more consistent with the initial pre-project projections rather than the immediate post closure estimates.

Table ES-2 includes a column that is a ratio of the survey estimates of outcomes compared to the initial projected outcomes from the original proposal for jobs created and retained, businesses created and leveraged private investment. As an example, the survey indicates that the surveyed projects generated 1,257 jobs compared to the initial projection for those projects of 1,783 jobs, generating a ratio of 0.7. The proposals appear to have somewhat overestimated the ultimate job impacts. For jobs retained the survey estimate of 512 is higher than the original projection of 306, generating a ratio of 1.7 suggesting that the original projections underestimated the ultimate impacts.

Assuming that the 69 projects for which surveys were completed are representative of the full universe of 132 projects allows us to generate estimates of impacts for the full universe using the estimated ratios.

Table ES-4 displays the generated estimates of impacts from the ARC portfolio of tourism, cultural heritage, and natural resource-related projects.

Table ES-4 Estimated Impacts of the Universe of ARC Tourism Projects

Impact Category	Initial Projection of Impacts	Survey-based Adjustment Ratio	Estimated Post Project Impacts	Estimated Units Impacts of ARC Funding
Jobs Created	3,671	0.70	2,588	\$4,161
Jobs Retained	5,616	1.67	9,397	\$1,146
Leveraged Private Investment	\$65,575,691	0.41	\$26,697,357	\$0.40
New Businesses Created	165	2.82	465	\$23,139
Businesses Served	7,148	1.05	7,486	\$1,438

The *Initial Projection of Impacts* column is the sum of the original projections from the proposals submitted to ARC as reflected in the ARC provided database. The *Estimated Post Project Impacts* column adjusts the projected impacts based on the ratios estimated from the survey results. So, for example, applying the 0.7 ratio we estimated to the original projection for job creation gives us an estimate of 2,588 jobs created by the 132 projects examined in this project.

The *Estimated Unit Impacts of ARC Funding* column shows that a new job was created in the community for every \$4,161 of ARC-provided dollars. A new business was created

for every \$23,139 in ARC funding. For every \$0.40 invested by ARC in the projects, \$1.00 of leveraged private investment occurred.

REFINING AND IMPROVING METRICS

The tourism, cultural heritage and natural asset-related projects included in this evaluation primarily address Goal 1 of ARC's 2005-2010 strategic plan – to “increase job opportunities and per capita income in Appalachia to reach parity with the nation.” ARC uses two measures to assess the outcomes of projects funded to achieve this goal. The primary measure is number of jobs created and retained and the secondary measure is leveraged private investment (LPI).

ARC has developed very specific definitions of each of these measures, as described in its Fiscal Year 2006 Performance and Accountability Report:

- ✦ **“Jobs created”** includes direct hires that will be made as a result of the project's operation. Also included are private-sector jobs that will be created within three years after project completion.
- ✦ **“Jobs retained”** refers to the number of workers enrolled in specific training programs or to the number of jobs at businesses that will be retained because of an investment that makes the companies more competitive.
- ✦ **“Leveraged private investment”** 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.

It is clear that job creation and retention are fundamental to ARC's mission and that the commission's congressional overseers assess its performance largely on this basis. As it stands the present system's methodology provides insufficient means for grantees to accurately measure job impacts. In fact, as it stands now, grantee reporting provides little useful information about employment impacts and does not permit ARC to develop meaningful estimates of the overall employment impacts of this group of projects.

Current problems

ARC's tourism, cultural heritage and natural asset-related projects typically seek to achieve one or both of two direct outcomes:

- ✦ Increase visitation and tourism revenues
- ✦ Increase sales of locally produced products

These outcomes can lead to job creation/retention and additional private investment. Measuring these employment and investment impacts requires two steps. First, accurate data must be obtained on the amount of tourism revenues or business sales generated. Second, methods must be employed whereby estimates of the impacts of increases in tourism revenues and business sales on employment and private investment can be developed.

Examination of data reporting methods for the projects included in this evaluation uncovered a number of problems that prevent ARC from obtaining accurate and complete data on jobs and private investment.

➤ **Methods Used by Grantees to Document Employment Impacts are Inconsistent and Often Methodologically Unsound**

For *tourism projects* well-established methods exist to measure the economic impacts of tourism projects. These involve a three-step process. First, mechanisms are put in place to track the number of visitors to tourism attractions. Second, surveys are conducted to ascertain the role played by the marketing of attractions and the resulting amount of visitor spending that occurs. Third, economic models are used to estimate the impact of increased visitor spending on local income and full-time equivalent (FTE) employment.

ARC tourism grantees do not, by and large, employ these methods. Some do not report employment impacts at all, but use proxies such as increased visitation to tourism attractions. Some measure employment impacts using other methods. Depending on method, they can lead to systematic over- or under-estimation of impacts. In addition this haphazard approach makes it difficult for ARC to compare impacts across projects.

Adopting established methods for economic impact analysis of tourism projects, while adding complexity and cost to the outcome reporting process, could at least partly address these problems.

➤ **There is No Practical Way to Measure Leveraged Private Investment (LPI) for Most Projects**

In some cases, private investment leveraged by an ARC-funded project can be identified and measured. Even in these cases, however, methodological issues arise, for example, on purchasing versus leasing and on how to handle working capital.

Since leveraged private investment is essentially used to generate job impacts, a preferred method would be to skip the LPI and move directly to estimating jobs impacts. An impact assessment methodology that fully captured employment impacts would obviate the need to measure LPI. If additional local sales generated by ARC-funded projects could be estimated in a reasonably accurate manner, applying economic impact models as could provide a better picture of impacts.

➤ **The Project Reporting Time Frame is Too Short to Fully Capture Employment Impacts**

Most of the outcome data received by ARC from grantees is through the final report, which is submitted within 30 days of the end of the project and in most cases before significant employment impacts have occurred. At best, the reports can inform ARC about the extent of project activity completion. Perhaps the most consistent frustration

voiced by project managers was that the employment impacts occur after the project is complete. While ARC staff conducts validation visits for a small number of projects two or three years after project close-out, the sample is far too small to draw any inferences about the longer-term employment impacts of these projects.

Instituting post-project reporting requirements could at least partly address this problem, although at additional cost to grantees. Even then the methodological issues for grantees would be formidable.

➤ **Impacts of Many ARC-funded Tourism Projects Cannot be Easily Isolated from Other Factors Influencing Visitation and Visitor Spending**

Additional tourism spending can be more easily attributable to some, typically larger, ARC tourism projects than others. Established impact analysis methods can estimate the impacts of these types of projects if the appropriate visitation and spending data are collected. We refer to these as “*tourism generators*.”

However, there are many other, typically small, ARC projects that, while contributors to an area’s tourism development, can’t easily be linked to additional visitor spending. Methods could be employed to track these smaller projects but it would be difficult to accurately assess their role in increasing overall visitor spending. These projects are more accurately described as “*tourism contributors*.”

RECOMMENDATIONS FOR A NEW FRAMEWORK FOR MEASURING EMPLOYMENT IMPACTS

These issues suggest that ARC should develop a new framework for measuring the employment impacts of its project portfolio. They also suggest that a number of criteria should be applied in establishing this recommended framework:

- ✚ Methods employed should be reasonably reliable and consistent.
- ✚ They should be designed to ensure that the impacts measured are attributable to the ARC project.
- ✚ They should be made as easy as possible to execute and proportionate to the grantee’s resources and the cost of the project.
- ✚ They should be tailored to the project type and stage of development.

➤ **Establish Standardized Practices to Assist Grantees with Impact Measurement**

The most appropriate way, as noted above, to measure the employment impacts of ARC’s tourism projects is to first measure increases in local revenues attributable to these projects, and then convert these numbers into employment equivalents using economic impact models. These tools have been used extensively by academic researchers, government tourism agencies, and private consultants. This would require technical and

funding assistance for grantees and preferably the development of an online economic development model that can be directly accessed by the grantees.

➤ **Tailor Measurement Methods to Project Characteristics**

While measurement methods should be standardized, they should also be tailored to take into account different project types and time frames. Most, importantly, the impacts of *implementation projects* should be measured differently than those of *planning projects*.

Another distinction should be made between tourism implementation projects that are “*tourism generators*” and those that are “*tourism contributors*.”

➤ **Require and Assist Applicants to Develop an Employment Impact Measurement Plan**

ARC should require all applicants to prepare an employment impact measurement plan as part of their project application. The plan should describe what impacts will be measured, what methods will be used, when it will be done, and who will be responsible for data collection and analysis. A budget line for impact measurement should be included in the project budget and ARC should be prepared to assist applicants with this process.

➤ **Establish Post-grant Reporting Requirements**

As noted earlier, it is typically premature to measure the employment impacts of this group of projects at the end of the grant period. Final reports should instead focus on reporting outcomes that can serve as preliminary indicators of the nature and extent of employment impacts that might be expected within 1-3 years of project completion.

In order to obtain meaningful information on actual employment impacts, ARC should require, with some incentive mechanism, grantees to submit post-grant reports at specified intervals, perhaps one and three years after project implementation. The three-year reporting interval meshes with ARC’s definition of job creation, which anticipates measurement of private sector jobs created within three years of project completion while the one-year report would be used as a management tool to help with project needed modifications.

AN EX POST FACTO ESTIMATE OF EMPLOYMENT IMPACTS

The project files provided by ARC indicated that the projects (those that are closed) generated 583 jobs. Those projects were initially projected by grantees, as reflected in their grant requests, to create 2,113 jobs. The mass of evidence described in this report suggests that grant recipients cannot be expected to accurately estimate employment impacts and therefore this large differential is not surprising. We endeavored to find an alternative means of estimating the impacts of the project portfolio ex post facto.

Using an analysis of the Crooked Road region of Virginia where ARC has made significant investments we compared reported project impacts to the estimated impacts based on a economic development model like those described above. Our basis was the 2008 study conducted by Sustainable Development Consulting (SDC) and entitled *Economic Impact Assessment of the Crooked Road: Virginia's Heritage Music Trail*.

The study estimated that 445 full-time equivalent (FTE) jobs were created by the Crooked Road initiative. How does this compare to the estimated impacts as reported by ARC grantees for the same portfolio of projects? The grantees reported that their projects generated 80 jobs or 18% of the estimated total reported by SDC. On the other hand the 445 FTE estimate is quite close to the initial projections made by the ARC grantees of 416.

This ratio of grantee job estimates to the economic model estimates provides a means of estimating job impacts of the full portfolio package of ARC tourism projects. Applying this ratio we estimate that the actual job impacts for the ARC portfolio are 3,243, compared to the reported estimate of 583. These results strongly support our recommendation that ARC investigate a practical implementation of an economic impact model to more accurately reflect the success of its investments in Appalachia.

THE TRIPLE BOTTOM LINE DEFINED

The Triple Bottom Line is built on the broader topic of sustainability. Sustainability is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” TBL focuses more narrowly on specific activities (by companies, organization, governments, etc.) and their impacts on the economy, society and environment. The economic dimension is generally straightforward but the social and environmental less so.

The Economic Dimension of TBL

Perhaps the easiest dimension to capture during triple bottom line evaluation is the economic dimension – in this case employment, income and investment. Industry-specific measures such as for tourism are also readily available to assess the economic performance of an activity or project.

The Social Dimension of TBL

The social dimension is often thought of in terms of *social capital*. Robert Putnam describes social capital as the “trust, norms and networks needed to facilitate cooperation.” A more robust framework specifies four dimensions of social impact, including an 1) individual’s well-being, 2) community well-being, 3) employment experiences and satisfaction, and 4) organizational impact. These are often not easily measured.

The Environmental Dimension of TBL

The environmental dimension is referred to by some as *natural capital*. Natural resources such as air, water, energy, forests, minerals, and soil can be thought of as the “capital” upon which our existence depends. Measuring the environmental dimension can be complicated, time-consuming and expensive.

The potential value of integrating TBL into ARC project planning and evaluation includes cost efficiencies (reduced energy and materials use), better living and work environments, more successful marketing of attractions as “green” and improved stakeholder relations. Also, adopting the TBL approach can improve a tourism development organization’s strategic decision making.

As we note above, project managers easily identified TBL relevant impacts when discussing their projects. This was particularly true for the social dimension.

A MODEL FOR IMPLEMENTING TBL IN ARC PROJECTS

The Conservation Fund’s “Creating Asset-Based Economies in Western North Carolina” project funded by ARC provides an excellent model for implementing TBL within the ARC portfolio. The project provides small grants to community organizations that support “triple bottom line” initiatives building a base of community support for entrepreneurship. The Conservation Fund provides technical assistance to the community organizations on implementing and evaluating their TBL project.

Two features are fundamentally important to the project’s success:

- ✚ It is intentional in nature; organizations must demonstrate that their proposed project integrates TBL as a basic operational goal.
- ✚ The project requires and instills a collaborative, continual training and learning process that integrates evaluation into project design and management.

The technical assistance involves workshops before and during the project. The process itself is taught in the workshops using a straightforward manual that use seven steps to guide the grantees through designing the TBL project, its management and evaluation.

The Conservation Fund program is not the only way to operationalize TBL into organizations receiving grants. It does provide an excellent building block for thinking about next steps for ARC to develop an explicit platform for building Appalachian Triple Bottom Line initiatives. The Conservation Fund program involves a level of handholding, training and workshops that may be unrealistic for an ARC-wide implementation.

We believe a practical program can be built. The skeleton of the process is outlined in the seven steps described in the Conservation Fund’s manual. ARC does not need to be involved in all parts of the process but we recommend two critical elements:

An explicit acknowledgment by ARC of the relevance of TBL

ARC must be upfront in adopting the Strategic Plan's suggestion that project success often goes beyond the traditional measures of employment, income and investment. While these traditional impacts provide the backbone for improving the lives and livelihoods of the people of Appalachia, they do not represent the complete picture.

Within this acknowledgment ARC will need to clearly define the *why* and *how* of the TBL. This might include the development of a series of straightforward background guidance documents or manuals.

Communicating a set of potential impacts and measurement options

The surveys, interviews and case studies we conducted, along with the Conservation Fund project experience, clearly show that grantees implicitly understand that the work they do within Appalachian communities impacts and is impacted by economic, social and environmental circumstances. Most grantees are used to thinking in terms of jobs, income and investment. Not only must they be assured that broader goals are acceptable, but they will need assistance in making the transition to a TBL perspective including defining potential TBL impacts and measurement methods for those impacts.

For details on our analysis and recommendations please refer to the main report.