

An Economic Analysis of the Monetary Cash Settlement for Swain County

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An Economic Analysis of the Monetary Cash Settlement for Swain County is authored by Susan B. Kask, Ph.D., Warren Wilson College, John Bonham, Blue Ridge Consulting, and Tom Tveidt, Clear Economics. The report is presented by the Environmental Leadership Center of Warren Wilson College, working in collaboration with the Southern Environmental Law Center.

The Environmental Leadership Center bridges the resources of Warren Wilson College to the community and beyond through the delivery of meaningful, data-based research projects that aid in effective decision-making throughout the region.

An Economic Analysis of the Monetary Cash Settlement for Swain County is presented to further inform dialog and aid in the development of a long-term plan that effectively meets the needs of Swain County. The following *Analysis* focuses upon the Monetary Cash Settlement Alternative and discusses its possible economic impacts upon Swain County.

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An Economic Analysis of the Monetary Cash Settlement for Swain County
Executive Summary

A financial settlement to Swain County in lieu of building the North Shore Road is likely to bring substantial economic benefits to the County and its citizens. A financial settlement would provide Swain County with flexibility to address the multiple needs of its citizens, now and into the future. Due to its large volume of federal and tribal lands, Swain County has a limited property tax base. If invested under conservative assumptions, a cash settlement would provide a permanent source of funds for capital improvements, salary supplements for essential County personnel such as first responders and teachers, tax relief for Swain County citizens, or multiple other priorities as they develop into the future.

These multiple investments likely would provide a variety of economic benefits to the County. In contrast, the North Shore Road would sink a large amount of capital into a single investment that would not address Swain County's multiple needs and would provide limited flexibility to address future needs as they arise.

With an unemployment rate of approximately 4.5% in the summer and 11% in the winter, Swain County's primary employment issue is not unemployment (the lack of jobs), but, rather, underemployment (seasonal and low-paying jobs). A cash settlement would give Swain County the ability to address this underemployment problem by diversifying its economy through self-development of home-grown businesses and through targeted industrial recruitment of new businesses.

A good example of these strategies in action would be insuring high-speed internet access throughout Swain County, a modern economic need that the County has identified but has had difficulty meeting due to lack of funds.

On the other hand, the primary long-term benefit of building the road would be to boost the local tourism sector. Tourism, however, is already is the largest employment sector in Swain's

economy and tends to involve both seasonal jobs and relatively low wages - the very problems Swain County most needs to ameliorate. A cash settlement would allow the County to pursue more diverse economic opportunities while also providing targeted assistance to the tourism sector, should they choose to do so.

The focus of this study is to examine the economic return of an investment scenario for the financial settlement based on current priorities and economic development strategies under consideration in Swain County. If the settlement amount is \$52 million - the amount the Park Service has set forth in its Draft Environmental Impact Statement - those benefits could include approximately 228 job years in the first 10 years of which 56 are considered permanent jobs. If the settlement amount were \$92.9 million - an amount that is justified by applying standard interest assumptions to the cost of the road that was flooded by Fontana Lake and that still is considerably less than the \$604 million cost of building the North Shore Road - those benefits could include 771 job years in the first ten years of which 100 are considered permanent jobs.

The figures stated above are for the first ten years, when the County may invest in various capital projects. After this time the \$52 million settlement may yield on average \$3.5 million per year, after debt from the capital projects has been paid, to supplement salaries or provide tax reduction. This sum could create an additional 22.5 permanent jobs each year.

Either the cash settlement or construction of the road is likely to bring economic benefits to Swain County. Because a cash settlement would provide a long-term funding source and flexibility to address the County's primary economic challenges, now and into the future, a cash settlement is likely to produce a more diverse set of benefits that accrue more broadly to Swain County and its citizens.

I. Introduction

The National Park Service is considering a proposal to construct a 30-mile road across the northern shore of Fontana Lake in the Great Smoky Mountains National Park (the North Shore Road). The stated purpose of the North Shore Road project is to fulfill a promise made by the United States government to Swain County, North Carolina, as part of a 1943 agreement.

The National Park Service projects that construction of the road will cost \$604 million. Swain County has endorsed an alternative approach to resolving the 1943 agreement in the form of a \$52 million financial payment to the County. The purpose of this study is to analyze the economic impacts to Swain County of such a financial settlement.

Construction of the North Shore Road is expected to generate additional tourist expenditures in Swain County. Those tourist expenditures potentially will increase employment in the tourist industry as well as generate some indirect impacts through the increased income from those new jobs. However, Swain County has less need to address unemployment – the County is near full employment – than to address underemployment through the creation of higher-paying jobs and year-round jobs.

Although construction of the North Shore Road potentially will create new employment opportunities in the tourism sector, tourism is already the largest employment sector in Swain County, providing a third of all private sector jobs in the County in 2005, up from 25% in 2004. Tourism also is the lowest-paying industrial sector in Swain County, providing the lowest wages and often, only seasonal employment. Because Swain County's local economy is already dependent on tourism, increasing this sector will not help to diversify the local economy, or to address the County's underemployment issues.

In contrast, a financial settlement would provide Swain County with resources to diversify the local economy and create new job opportunities in non-tourism sectors in addition to cultivating

the County's growing tourism industry.¹ Swain County could accomplish these economic goals by providing infrastructure that nourishes home-grown business (self-development) and by attracting new businesses to relocate to Swain County (industrial recruitment).

This study examines possible approaches to applying a financial settlement to each of these strategies based on Swain County's current position and on the economic development plans currently under consideration in Swain County and the region.

A financial settlement also would provide Swain County with much greater flexibility to meet a range of diverse and changing needs over time. The diverse purposes to which Swain County could apply the financial settlement include these:

- Improved fiscal stability of the County;
- Investment in education and health services;
- Investment in additional community capital needs;
- Tax reduction;
- Needs and opportunities not currently anticipated.

Although the Swain County Commissioners clearly have stated that choices among possible investment scenarios for a financial settlement must be left to the discretion of future elected officials, this study provides a reasonable projection of possible scenarios from investment priorities currently under consideration in Swain County. In addition to improving quality of life in Swain County, application of the financial settlement to any of these priorities will create ripple effects in the local economy that create jobs, income, and opportunities for Swain County residents. The flexibility to apply the financial settlement to Swain County's needs, now and in the future, together with the opportunities it would provide to diversify the County's economic

¹ The County could put efforts into redirecting tourism activities from recreational to heritage. According to the Travel Industry Association of America, people who participate in heritage tourism do more, spend more and stay longer than other types of travelers. A heritage plan has been written for the County which lies within the Blue Ridge Heritage Area, giving it marketing power and financial and technical assistance from the US Park Service. See <http://www.blueridgeheritage.com/pdfs/Swain%20County%20Heritage%20Plan.pdf>

base, will achieve more for the long-term economic development of the County than a single road and its derived benefits.

This scope of this study is as follows:

- Section II: Description of Swain County;
- Section III: The 1943 Agreement;
- Section IV: Economic Development Strategies for Swain County;
- Section V: Methods of Analysis: assumptions, and data; economic underpinnings for the currently proposed \$52 million settlement; possible alternative settlement amounts;
- Section VI: Self-Development Scenarios
- Section VII: Results;
- Section VIII: Conclusion.

II. Swain County, North Carolina

A rural county in western North Carolina, Swain County is nestled in the natural beauty of the Great Smoky Mountains and surrounded by and enveloped in the Great Smoky Mountains National Park and the Nantahala National Forest. This geography is a great asset to the County, but also presents the County and its citizens with unique challenges. Geographical constraints limit economic development opportunities for the County and limit the tax base, complicating County government's task of providing services and infrastructure for its citizens.

Rural counties generally, and those in Appalachia specifically, face many difficulties when crafting an economic development strategy. Swain County is no exception. These challenges begin with the landscape. Swain County, like other Appalachian counties, is characterized by a steep topography with scarce developable land and limited natural resources. This limitation on developable land is greatly compounded in Swain County by the federal land holdings within the County. Eighty-six percent of Swain County is owned by the federal government or the Cherokee Nation, leaving only 50,000 acres in private ownership, of which only 6,000 remain developable (Ken Mills).

In addition to impeding independent development, the steep terrain of western North Carolina also acts as a barrier to individuals taking advantage of economic opportunities in the region by adding distance, time and difficulty to commutes. For example, Southwest Community College is building a campus in Franklin (Macon County) because residents do not want to drive the twenty miles “over the mountain” from Swain County to Sylva (Jackson County). (Connie Haire).

The difficulty in promoting regionalism undermines efforts to address another limitation on economic development in Swain County – its population. The 2000 Census counted the Swain County population at 12,968 with a workforce of 5,968, both of which are skewed upwards by the presence of the Cherokee Eastern Band Reservation within the boundaries of Swain County. Since residents and business in the Cherokee nation don’t pay county tax and little economic activity leaves the reservation, it is appropriate to adjust the employment and income information when considering policy for Swain County. Adjusted by the 29% of the population that is Native American, the remaining population and workforce are 9,207 and 4,177, respectively. This small population complicates efforts to recruit new employers to Swain County because there is a limited pool of workers and a limited number of unemployed workers at any given time.

In addition, Swain County’s topography limits the practicality of attracting commuters from outside the County to staff new businesses. Even mid-sized employers that relocate to the County often have to attract employees from existing employers. As stated above, the concerns for County officials are related more to underemployment than unemployment. The number of unemployed in the last two years has ranged from approximately 300 individuals during the summer tourist season to 700 during the winter months. The seasonal nature of many jobs in Swain County leads to the fluctuation seen in these numbers. In essence, a major new employer, even if attracted to the County, may cannibalize existing employers. Thus the County’s small population is a limit on its economic development.

Although the Swain County is near full employment, 18.3% of the County's population lives below the poverty income level². This percentage is higher than the state-wide average of 14%. As a result, the primary concern of county officials and stakeholders in Swain County is not unemployment, but rather underemployment - the lack of high-paying year-round jobs. The Swain County workforce is 25-30% underemployed— many jobs are in, or related to, the low paying and/or seasonal tourism industry.

This underemployment is explained in part by the County's dependence on the tourism industry. Tourism is a large part of the Swain County economy and is growing bigger every year. The Great Smoky Mountains Railroad recently announced that it would make Bryson City the main hub for its scenic train tours. Furthermore, the County has the potential to expand its tourism market into heritage tourism. According to the Travel Industry Association of America, people who participate in heritage tourism do more, spend more and stay longer than other types of travelers. A heritage plan has been written for the County that lies within the Blue Ridge Heritage Area, giving it marketing power and financial and technical assistance from the US Park Service.³

While the opportunities available for expanded tourism are good news for the County, the continued growth of the tourism industry means that Swain County is ever-more dependent on tourism for employment. Thirty-five percent of Swain County citizens employed in the private sector in March 2005 worked in the tourism industry and, in 2004, tourism had the highest average annual employment at 25% of those employed in the private sector. Nationally only 2.33% of the population is employed in tourism. (NC ESC and Ketels 2003)

While an important part of the County economy, the tourism industry provides only limited job opportunities compared to other industries. In Swain County the tourism industry pays average wages ranging from \$14,000 to \$35,000 depending upon employment category, and yields

² US Census Factfinder for the NC Rural Center. This statistic includes only those below the poverty level. The census statistics group those at the poverty level with those above the poverty level. Thus to fully understand the extent of poverty one should look at the number of households or persons at or below the poverty income level. This statistic is a lower bound.

³ See <http://www.blueridgeheritage.com/pdfs/Swain%20County%20Heritage%20Plan.pdf>

\$16,000 on average in the region, illustrating that the majority of wages in this sector are on the lower end. Nationally the hospitality and tourism cluster yields the lowest wages of any recognizable employment cluster. (Ketels 2003) A ranking of wages by industrial cluster in western North Carolina yielded the same result. See Table 6 below.

Furthermore the tourism industry typically is seasonal. The tourism industry in Swain County is no different, with monthly unemployment rates fluctuating from highs in the off season of 11% (November – March) and then lowering in the on-season (April-October) to 4.5% in 2004 (NC ESC). Although tourism is a natural fit for Swain County because of its location and topography, the high percentage of tourism-dependent jobs in Swain County has contributed to the County's underemployment.

In addition to affecting economic development and employment prospects, Swain County's unique geography also has a profound impact on the ability of local government to provide services and infrastructure to its citizens. Because 86% of the County's land is in federal or Cherokee Nation ownership, only 14% of the County's land is subject to property taxation. The modest payments the County receives from the federal government's Payment in Lieu of Taxes program are inadequate to fill the budgetary gap created by this limitation of property taxation.

From this limited pool of property tax revenue, Swain County government must fund all infrastructure and services required of County governments in North Carolina. Current needs of the County include investment in school facilities, a new law enforcement center, water and sewer infrastructure, increased payroll budgets for police, teachers and emergency medical services (EMS); and better medical services.⁴ Swain County does not provide its teachers with a supplement to their state salary.⁵ As a result, it has difficulty attracting and keeping highly qualified teachers. Other priorities include property tax reduction, a concern of landowners who have seen property values and tax rates increase in the last year.⁶

⁴ See Leaders discuss population growth, economy at SCC forum, *Smoky Mountain News*, 3-8-06; Cash: a better deal than a road, *Smoky Mountain News*, 2-8-06; interview with Glen Jones, Bill Gibson, Ken Mills.

⁵ See Board voices support for teacher pay supplement, Sarah Kucharski, *Smoky Mountain News*, 1-21-04.

⁶ See New property values shock some, Pete Lawson, *Smoky Mountain Times*, 3-18-05; Resolution of the Swain County Commissioners, February 11, 2003 (noting that financial settlement would "provide a stable system of taxation without increases in taxes").

Swain County's modest stream of property tax revenue (a one percent increase would yield only \$100,000 for the County) prevents the County from obtaining a bond rating.⁷ As a result, the County is forced to seek short-term loans at commercial rates to provide basic infrastructure and services. Although grant funding is available to address some of these needs, Swain County often cannot meet the match requirements to obtain them. Swain County has only \$140,000 in its Capital Reserve fund for the Economic Development Commission, far less than needed for many grant matches.⁸

III. The 1943 Agreement

The National Park Service is currently considering a \$52 million financial settlement with Swain County as an alternative to building a road promised to Swain County in a Memorandum of Agreement of July 30, 1943. When TVA constructed the Fontana Dam and created Fontana Lake, the flooding submerged a Swain County road, NC 288. At that time, NC 288 was the only road access to the communities on the north shore of the future reservoir. NC 288 was constructed by a local road district but Swain County later assumed the outstanding bond indebtedness for construction of the road.

Rather than reconstruct the flooded road, a project the War Production Board would not authorize at that time, TVA proposed to acquire the private lands between the boundary of the Great Smoky Mountains National Park and the new Fontana Lake and convey them to the Park. These 44,000 acres were inside the original acquisition boundary Congress authorized for the Great Smoky Mountains National Park, but never had been acquired due to lack of funds. By purchasing those private lands, TVA removed any need to reconstruct NC 288 by relocating the communities that road served. This solution lowered the cost of the Fontana project as well, as the acquisition cost of the 44,000 acres was less than the cost of reconstructing NC 288 through the rugged terrain in that region.⁹

⁷ Interview with Ken Mills.

⁸ Interview with Ken Mills.

⁹ A 1950 Report by TVA summarizing the Fontana Dam project estimated that it would have cost at "at least \$1,200,000 to build a road of the same character – crooked, narrow, and poorly supported – above the reservoir

This arrangement was memorialized in the 1943 agreement between the Department of Interior, the State of North Carolina, the Tennessee Valley Authority, and Swain County. As part of the promises exchanged in that agreement:

- TVA agreed to acquire the 44,000 acres of land on the north shore of the proposed reservoir and to convey those lands to the Department of the Interior for inclusion in the Great Smoky Mountains National Park.
- TVA agreed to pay \$400,000.00 to the State of North Carolina to be held in trust for payment on the bonds then owed by Swain County for the road.
- North Carolina agreed to contribute \$100,000.00 towards acquisition of the 44,000 acres.
- The Interior Department agreed, contingent on the appropriation of funds by Congress, to build a new road from the eastern boundary of the Park, to the Dam at Fontana, as part of its planned “Around the Park” road.
- North Carolina agreed to build a road from Bryson City, N.C. to the eastern boundary of the Park, to connect with the new road promised by the Interior Department.

In the 62 years after execution of the 1943 Agreement, the Department of Interior has not constructed the road contemplated by that agreement - the North Shore Road. In 1962 the National Park Service abandoned construction of the first segment of the road for environmental and budgetary reasons. Since that time, the Park Service has not requested any additional appropriations for the road. Some years ago, the State of North Carolina built a new road on the south shore of Fontana Lake, N.C. 28, that satisfied regional transportation demand by connecting Bryson City with the communities on the western side of the Park.

level” and much more to construct a road up to government standards. See Tennessee Valley Authority, The Fontana Project: A Comprehensive Report at p. 43-44 (1950). The cost of purchasing the 44,000 acres, in contrast, was only \$1,075,000. Id. at 44. A 1946 Supreme Court decision arising out of the Fontana Dam project reported that the estimated cost of replacing NC 288 with “the same undesirable type of highway would cost about \$1,400,000.00, while the cost of building an improved highway would greatly exceed that amount.” Tennessee Valley Authority v. Welch, 327 U.S. 546, 549 (1946).

The Park Service's official position since 1980 has been that the 1943 agreement should be resolved through a financial settlement rather than construction of the North Shore Road.¹⁰ In 1980 Interior Secretary Cecil Andrus agreed to a settlement that included a \$9.5 million cash payment to Swain County together with forgiveness of \$1.6 million in loans owed by Swain County to the federal government. That settlement amount was based upon a formula that reimbursed Swain County for the cost of the road, valued by the parties at \$1.7 million in 1943 dollars, less the \$400,000 paid to Swain County as part of the 1943 agreement, adjusted for inflation. This same formula is the basis for a 2003 resolution of the Board of Commissioners of Swain County offering to resolve to settle the 1943 agreement for a financial settlement of \$52 million.

IV. Economic Development Strategies for Swain County

In addition to directly addressing the needs of Swain County for services, infrastructure, and tax relief, a financial settlement would provide the resources to implement an economic development strategy. While any expenditure of money within the County has the potential for ripple effects in the local economy - creating jobs and raising incomes - investments in economic development are targeted to increase the productive capacity of the County over the long-term, e.g., attracting new business and helping existing business to expand.

Application of part of a financial settlement to an economic development strategy could improve the quality of jobs for existing residents and address Swain County's problem of underemployment. Economic development also could expand the local tax base, thereby improving the long-term ability of Swain County to provide needed infrastructure, services and/or tax relief desired by its citizens.

The County can choose from two primary economic development strategies: 1) industrial recruitment; and, 2) self-development. An industrial recruitment strategy seeks to recruit a specific industry or industrial cluster to relocate to the County by offering incentives or building

¹⁰ See National Park Service, Major Management/Issues Decision, Proposed North Shore Road Through Great Smoky Mountains National Park, February 15, 2001; National Park Service, Major Management/Issues Decision, Proposed North Shore Road Through Great Smoky Mountains National Park, April 9, 2002.

infrastructure targeted to that industry. Self-development projects, in contrast, cultivate home-grown business and attract entrepreneurs seeking a rural lifestyle by investing in infrastructure such as high-speed internet connections or community institutions such as schools. The scenarios analyzed in this paper seek to identify an economic development strategy that fits with Swain County's strengths and the current thinking within the County and the region.

A. Industrial Recruitment Strategy

The industrial recruitment strategy employs targeted investments and other inducements to attract a firm or firms in a specific industry to locate a facility in the area. Inducements typically include financial incentives such as low interest loans, tax abatements and tax credits designed to minimize the relocation costs of prospective firms (Kraybill and Weber, Green and Fleischman, Sharp et al.). The industrial recruitment strategy turns on a view that land and cheap labor are key drivers of economic growth and measures success in terms of the number of jobs created by the location of new facilities in the area (Kraybill and Weber).

The industrial recruitment strategy can carry high costs and often provides only a small chance of success. Despite the inducements offered by local governments, location decisions are made mostly outside the community in corporate offices and trade shows (Kraybill and Weber) and depend less on incentives and more on land and energy costs, labor characteristics, market factors and even climate (Green and Fleischman). Too often, industrial recruitment efforts target firms in declining sectors that will likely not bring quality jobs or stay for the long term (Loveridge). Despite the costs and competition associated with industrial recruitment, the strategy remains common because success stories, though rare, are highly visible and easily measured by the number of new jobs created at a new facility. (Sharp et al.).

B. Industrial Cluster Strategy

A variation on the industrial recruitment strategy, the industrial cluster strategy, focuses on attracting a cluster of related industries to the community. An industrial cluster is a group of related firms that locate in geographical proximity to each other to create competitive advantages

for member firms and the local economy. Firms in an industrial cluster can be related horizontally, because they produce similar products or services, vertically, because they form a chain of production based on a common raw material (e.g. sawmills, millwork and flooring manufacturers), or by reliance on specialized services and/or labor.

AdvantageWest, in its five-year vision plan, has set its economic development goals for western North Carolina on the strategy of developing clusters of innovation throughout the region. Clusters identified by AdvantageWest for the far western region, which are based upon the region's resources and existing business, are related to arts and crafts (home-based artisans and niche wood products), the environment (sciences and value added natural resources), recreation and tourism, and retirement (second homes, retirement communities and senior services). Although Swain County could not support any cluster independently, knowledge of the regional clusters can help the County in their recruitment efforts.

Advantages to clustering include these:

- Localization economies that lower production and marketing cost for firms;
- Opportunities for firms to concentrate on specialized products and develop new technologies;
- Networking opportunities among firms;
- The ability for communities to direct economic development resources towards the specific needs of the targeted industry (Barkley and Henry).

The downside to clustering is much the same as that of a traditional industrial recruitment strategy, the likelihood of success is small. Three reasons account for this reality:

- Communities have difficulty identifying an industry that best fits their economies and resources and the firms that would be attracted to the cluster;
- Communities trying to establish a cluster that are already established in other areas will likely not be able to provide competitive advantages;

- Communities will have difficulty building the institutional framework required to establish and grow a cluster (Barkley and Henry).

Swain faces all of these challenges, but especially struggles with the lack of unemployed workers. Clustering may boost the success of an industrial recruitment strategy in Swain, however, by allowing Swain to focus more carefully on particular industries in their efforts to recruit.

Swain County would face a number of significant challenges if it were to pursue industrial recruitment or industrial cluster strategy as its primary economic development strategy including these:

- Swain County's limited budget could undermine efforts to induce industries or industrial clusters to relocate to the County. Even with an adequate inventory of marketable industrial sites, the County would still need to market the sites and be prepared to offer an incentives package (Dale Carroll). With additional operating revenue from a financial settlement, however, a limited program of industrial recruitment with some recognition of Advantage West's cluster proposals may be feasible.
- The small Swain County workforce will not support many industries since it already operates near full employment for part of the year, (Bill Gibson). Although Swain County has a small workforce, industries interested in the region are bringing smaller numbers of high-paying jobs (Mark Owen), and each new firm brings the potential of further expansion (Dale Carroll). A Swain example is Zickgraph, a firm that arrived in 2000. Zickgraph occupies a Swain County building certified in 1997 (Dale Carroll), employs 60 workers, and is growing.
- Swain County has a shortage of marketable industrial sites. The North Carolina Department of Commerce maintains a list of NC Certified Sites that have been evaluated for an environmental audit, availability of public utilities, price competition, and more. Certified sites and buildings in western North Carolina are marketed by AdvantageWest,

the regional economic development commission. Swain County has no NC Certified sites. Swain County has a large, former sewing plant and three undeveloped sites (9, 30 and 99 acres) in its inventory, none of which are certified. The former sewing plant is not certifiable because its dimensions are antiquated; the nine-acre site is located in an industrial park with water, sewer and utilities, but requires engineering work and internet infrastructure; and the other two sites require engineering work, water and sewer infrastructure, utilities and internet infrastructure (Ken Mills).

These challenges counsel against choosing industrial recruitment or industrial clustering as the primary economic development strategy for Swain County. Despite these challenges, however, an industrial recruitment or industrial cluster strategy may warrant a place as part of a larger economic development strategy. Accordingly, a sensible investment of part of a financial settlement could include moving Swain's limited stock of industrial sites, especially the closed sewing plant, towards NC Certification, addressing a key limitation on industrial recruitment and moving an idle asset towards economic productivity.

C. Self-Development Economic Development Strategy

A self-development economic development strategy may be a better fit as a primary economic development strategy for Swain County. Self-development strategies are based on investments and activities that lead to the creation or expansion of locally-owned enterprises.

Economic growth is influenced by internal factors such as infrastructure and labor, and external factors such as demand conditions and the national economy (Kraybill and Weber). Swain County enjoys a number of positive internal factors for purposes of economic development including a low cost of living, low crime rate, a variety of recreational facilities and opportunities, highway infrastructure, and a good school system, despite low salaries and aging buildings (Bill Gibson, Ken Mills).

A self-development strategy seeks to further improve internal factors within Swain County that influence economic development with the goal of making the County more attractive for both

home-grown business and for firms considering relocating there. Rather than target investment towards a particular industry or industrial sector, a self-development strategy targets factors of production that improve the business climate in the County for all firms.

Self-development strategies can be especially appealing to rural communities. Such strategies have been implemented, for example, by rural communities that have experienced these conditions:

- An economic crisis, such as a plant closing or downturn in the local economy (Sharp et al.);
- A lack of resources to implement an effective industrial recruitment strategy;
- A desire for a more diversified economy based on smaller, locally-owned businesses (Flora et al. 1992).

Self-development reduces the community's reliance on absentee-owner firms and, as a result, makes the community less vulnerable to shifts in production technologies and marketing environment that lead such firms to close or relocate. Self-development also expands the decision-making process to a broader range of people in the community and creates an increased sense of community that can spill over into other civic efforts (Flora et al. 1992).

Although individual self-development projects create fewer jobs than individual industrial recruitment projects, the jobs they create are often of higher skill (Sharp et al.). Statewide, small firms are driving economic development in rural areas as large firms continue to decline. Firms with fewer than 10 employees created nearly 10,000 new jobs in North Carolina rural communities in the 1998 to 2002 period. In that same period, rural firms with fewer than 50 employees created nearly 30,000 jobs while rural firms with more than 100 employees lost 42,000 jobs¹¹.

¹¹ http://www.ncruralcenter.org/databank/trendpage_Employment.asp

C. Analysis of Options

A prosperous economic future for Swain County likely will involve a new self-development strategy towards economic progress. Although limited industrial recruitment investments offer some promise of success, most development activities should be focused on attracting small, knowledge-based firms and growing existing businesses.

The new strategy would focus more on the needs of the business agent and less on the business itself. Such a strategy would target factors that improve quality of life in Swain County and that provide multi-purpose infrastructure that improves the business climate in Swain County both for home-grown entrepreneurs and for firms considering a relocation to the County. Swain County has already recognized that investments targeted toward a self-development strategy of economic development are the best way to meet Swain's needs.¹²

D. Importance of High-Speed Internet Connectivity

The modern economy is knowledge-based and consists of enterprises that are largely free of geographic constraints. The main factor of production for these businesses is a high-speed internet connection. The County has not experienced the economic, educational, medical, and other benefits enjoyed by the rest of America in the modern economy because it lacks a robust telecommunications network (Appalachian Regional Commission). For these reasons, a promising self-development project for Swain County is construction of infrastructure required for a high-speed internet connection.

County stakeholders have already identified connecting the County to the existing BalsamWest FiberNET fiber optic network as an economic development priority.¹³ The network is an advanced telecommunications infrastructure providing high-speed internet access across six counties in western North Carolina. Swain County lacks the local or "last mile" infrastructure to

¹² Going local to grow jobs in Swain, Becky Johnson, *Smoky Mountain Times*, 1-7-04.

¹³ The future at our doorstep, Kyle Dixon, *Smoky Mountain Times*, 1-28-05; Paying the big box price, Sarah Kucharski, *Smoky Mountain News*, 3/23/05.

take advantage of this high-speed internet pipeline. The County estimates that they need \$2,000,000 to build this last mile, however, they do not have the funds needed to service the debt required to do so. The financial settlement could help with this investment.

The primary objective of this self-development project would be to create an environment suitable for local entrepreneurs and for high-tech businesses looking to relocate to the area from metropolitan areas. The consensus among academic, civic and business leaders in the region is that connecting to the BalsamWest fiber optic network may not be as simple as “if you build it they (businesses and jobs) will come,” but that it is a case of “if you don’t build it they will not come.”

A recent report from the Office of Advocacy of the Small Business Administration reached a similar conclusion as the Swain County officials and stakeholders. Results from the study suggest that rural economies may be missing out on the benefits of higher growth and job creation from broadband and high-speed connection due to the lower access and use of this technology in these areas (Pociask 2005).

In the modern economy, high-speed internet infrastructure is a necessity for a wide spectrum of firms. Manufacturers use the internet to receive design plans and to interact with suppliers and customers (Bill Forsyth, Gwen Harris, Leon Tahem), and retail and service businesses are becoming increasingly dependent on high-speed internet connections to interface with suppliers and home offices (Gwen Harris). Insufficient internet connectivity has caused several businesses looking to move to, or open offices in, western North Carolina to go elsewhere (Ken Mills, David Hubbs).

Drake Software (Franklin, NC), a founding partner of the BalsamWest network, is an example of the growth that a knowledge-based firm can experience, and the need for a robust, high-speed internet connection. The firm began developing tax software for professionals 28 years ago and has grown to over 500 employees today. Drake reached a point where they needed better internet connectivity than was available to them and had to make the choice to either build the infrastructure themselves or leave the region.

Investment in high-speed internet infrastructure would remove a barrier to economic development and make Swain County a suitable option for firms seeking to take advantage of the County's quality of life. By addressing the barrier of inadequate internet infrastructure the County can appeal to the personal needs/wants of the business agent such as natural amenities, low crime, highways, proximity to an airport, proximity to a city, healthcare and schools.

Lone-wolves and small firms locating in Swain County will need only a few employees in the beginning and the ability to grow over time, making them a good fit with Swain County's population profile. Swain receives an influx of holiday visitors each year from cities across the southeast as well as the seasonal second home owners. This population provides the County with a natural starting point to recruit these lone-wolves to the County. Both Swain and Macon have recruited new business from this population in the past.

To provide the skilled labor as these businesses grow, the County also could invest in educating a workforce that is willing and capable to train for computer-based jobs and institutions and programs to provide the training.

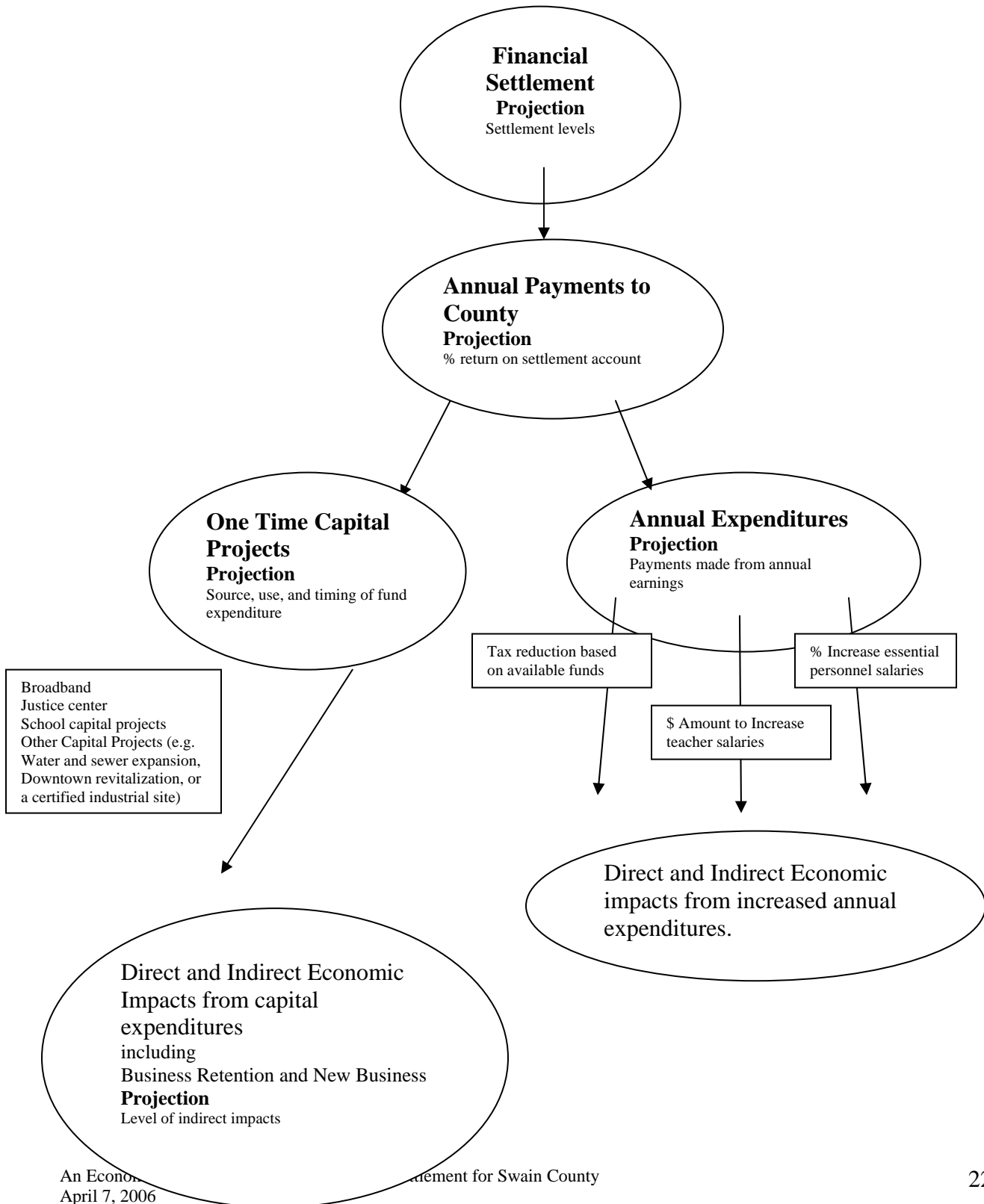
The provision of access to high-speed services impacts more than the County's ability to attract high-tech businesses and cultivate home-grown business. Digital telecommunication infrastructure and capacity could stem Swain County's population outflow, diversify its local economy and improve its school system (Cecil Groves). It also affects the competitiveness of non-tech industries as well as K-12 and adult education programs (Appalachian Regional Commission). For these reasons, a self-development strategy targeted on developing high-speed internet infrastructure and combined with continued investments in community infrastructure like schools is a promising economic development scenario for Swain County. Because the high-speed internet investment is already identified as a priority by Swain County officials and stakeholders, it is also a reasonable scenario for an analysis of the economic impacts of a financial settlement of the 1943 agreement.

V. Methods of Analysis

Scenario analysis is used to provide a vision of alternative outcomes that may occur as a result of a financial settlement. Scenario analysis is an important tool when planning and decision-making involve complex uncertain outcomes. The scenario approach aids in assessing impacts from alternatives under consideration and is becoming more common for community planning in the United States. (Public Roads 2005) In this study we develop four scenarios for Swain County to consider the impact of a financial settlement for the North Shore Road project.

Figure 1 illustrates the steps required in order to develop the scenarios used to estimate the direct and indirect impacts that can arise from the settlement and a program of self-development in Swain County. The figure shows the points where important projections were required in order to move our understanding from theory to quantifiable economic results. The financial settlement options and annual payments are discussed below. The scenarios are developed in section VI.

Figure 1: Scenario Framework for Evaluating Economic Impacts from a North Shore Road Financial Settlement



A. Financial Settlement Alternatives

The National Park Service is currently considering a \$52 million financial settlement with Swain County to compensate the County for the government's failure to complete one of the promises made to Swain County in the 1943 agreement: construction of a road along the northern shore of Fontana Lake from the vicinity of Bryson City to Deals Gap. The Swain County Commissioners have issued a resolution favoring "a cash settlement of the 1943 agreement controversy" in the amount of \$52 million. See Resolution of the Swain County Commissioners, February 11, 2003. Because the National Park Service and Swain County have not reached final agreement on a settlement amount, we explore the economic underpinnings of the settlement to identify possible financial settlement alternatives.

In economic terms, Swain County's willingness to accept a given financial settlement is a measure of their willingness to accept compensation for a negative change, also known as compensating variation. In this case, the negative change for which the County is being compensated is failure to perform the promise made in the 1943 agreement to build a road along the northern shore of Fontana Lake. Any voluntary settlement amount agreed to by Swain County and the United States will be less than or equal to the government's maximum willingness to pay for that negative change and greater than or equal to the County's minimum willingness to accept and will reflect the relative bargaining power of the parties at that time.

The purpose of the settlement amount is to compensate Swain County for failure to complete one of a suite of promises made in the 1943 agreement. For purposes of this discussion, it is important to recognize that the 1943 agreement was itself a voluntary settlement reached between the parties to compensate Swain County for the loss of NC 288, a road flooded by the creation of Fontana Lake. At the time the old NC 288 was flooded, Swain County placed some value on the services provided by the road that likely included, 1) access to rural communities and, 2) enhanced regional connectivity, with attendant potential for economic development and property tax revenue.

However, construction of a replacement road would serve neither of these two values provided by the flooded road. Because the rural communities served by the flooded road were relocated as part of the 1943 agreement, a replacement road would not provide connection to these communities. The need for enhanced regional connectivity, restoring the regional link between Bryson City and the western edge of the park, was met by the subsequent construction of new NC 28 to the south of Fontana Lake.

Because the government could not reconstruct the flooded NC 288 during war time, isolating those communities until such time as the road could be replaced, the government relocated the communities and transferred the land to the park. This solution eliminated the immediate need to reconstruct the road, but also eliminated over 44,000 acres of land from Swain County's taxable land base. Perhaps for this reason, the 1943 agreement provided both for a replacement road with associated regional connectivity and a \$400,000 cash payment to Swain County.¹⁴

Thus, one valuation of Swain County's willingness to accept compensation for failure to build the road promised in the 1943 agreement, would be the value placed by the County on the regional connectivity that such a road would provide to the County, brought to present value. A significant difficulty arises as it is near impossible to value the regional connectivity provided by NC 288 before it was flooded and thus to carry that loss forward 62 years. Thus, this approach is not workable for determining a settlement value, and we will not discuss it further, but it remains the underlying economic basis for Swain County's willingness to accept compensation for failure to build the promised road for which other measures provide a proxy.

An alternative approach to valuing the government's unfulfilled promise to Swain County is the cost to Swain County of building the original NC 288. The amount the County spent to construct the road is an identifiable lower bound to the value placed by the County on the services provided by the road. Under this theory, the County would not have expended that money if the road did not provide at least an equivalent value in services over its projected useful life.

¹⁴ Letter from L.J. Van Mol, General Manager, Tennessee Valley Authority, to Mr. James G. Deane, October 17, 1963 ("To meet Swain County's approval, the readjustment of highway 288 had to include a highway connection between Bryson City and Deals gap and also provide a means whereby Swain County could eliminate, or at least reduce, the bonded indebtedness.").

Accordingly, the cost of construction provides an approximation, likely an underestimate, of the value of the road.

TVA reported in its study of the Fontana project that the Forney Creek Road District constructed NC 288 in the “early 1920s” with the proceeds of two bond issuances totaling \$600,000. See Fontana Project at 43. Swain County subsequently assumed the bond debt incurred by the Forney Creek Road District for construction of NC 288.¹⁵ As we explain below, in 1984 the United States and Swain County agreed to a mutually-acceptable number for the original construction cost of NC 288: \$1.7 million in 1943 dollars. This number is reasonable as the 1943 present value of the original \$600,000 bond issuance in the “early 1920s” is approximately \$1.8 million, assuming 20 years at 5.5% interest. Taking this mutually-accepted number as the original cost, \$1.7 million paid in 1943 would have been the minimum compensation the County would have accepted for the change imposed by the flooding of NC 288.

A third approach to valuing a financial settlement arises from the fact that the County and the United States have previously agreed to a settlement amount for the government’s failure to construct the North Shore Road. In a series of early 1980s settlement negotiations between Secretary of Interior Cecil D. Andrus and the Swain County Commissioners, the County and the United States agreed to a formula for the valuation of the unfulfilled promise to build the North Shore Road.¹⁶ That formula was based on an accepted value for the original cost of building NC 288 of \$1.7 million in 1943 dollars less the \$400,000 payment made to Swain County by TVA as part of the 1943 Agreement.¹⁷

¹⁵ Swain County’s outstanding bond debt for the road at the time of Fontana project was \$459,000 in principal and \$235,000 in interest. See Fontana Project at 43.

¹⁶ See Memorandum to Secretary of Interior from Assistant Secretary for Fish and Wildlife and Parks re North Shore Road, December 19, 1979 (“[The Swain County Commissioners] now want a cash settlement of \$14,681,004.04, which is based on calculations where they compound interest at 6% for 36 years on the original construction cost of \$1,700,000. The indicated at the meeting however, that this figure might be negotiable to the extent of subtracting the \$400,000 paid by TVA if the actual application of this money to the original bonded indebtedness can be determined.”); see also Statement of Hon. James McClure Clarke, a U.S. Representative from the State of North Carolina, March 16, 1984 (“[T]he National Park Service and the Swain County Commissioners negotiated a settlement in 1980” and agreed to a “formula in determining the amount of a cash settlement. The value of the old road now flooded by Fontana Lake was established at \$1.7 million.”).

¹⁷ Decision Sheet, North Shore Road, November 29, 1980, signed by Secretary of Interior Cecil B Andrus and choosing to “Support a figure of \$9.5 million based upon the value of the road in 1940 at \$1.3 million and compounded annually at 5%.); see also Letter from Assistant Secretary of Interior William P. Herr to Honorable J. Bennett Johnston, Chairman, Committee on Energy and Natural Resources, July 23, 1984 (“[O]ur information is that

In 1984, the Department of Interior applied this formula to develop a \$9.5 million settlement proposal for Swain County based on a \$1.3 million net road construction cost (\$1.7 million cost less \$400,000 payment) brought to a 1984 present value with a 5% interest rate. The County pressed for more, however, and the bill introduced to Congress and endorsed by the Department of Interior provided for an \$11.1 million settlement with Swain County in the form of a \$9.5 million cash payment combined with \$1.6 million in debt forgiveness on loans owed by Swain County to the federal Farmer's Home Administration.¹⁸

Starting in 1984, the Department of Interior supported several legislative attempts to formalize that agreement and to make the required payments to Swain County, but the bills did not pass Congress. The Swain County Board of Commissioners also passed a resolution supporting such legislation as a settlement of the obligations of the United States under the 1943 agreement.¹⁹ As the \$11.1 million settlement amount was formally endorsed by both Swain County and the United States by January of 1984, as demonstrated by their support for the bill appropriating that figure to Swain County, \$11.1 million represents the 1984 value assigned by the parties to the unfulfilled promise.

A final approach to valuing the failure to complete the promise to build the North Shore Road is the cost of completing that promise today. From an economic perspective, replacement cost can be an efficient approach to compensation:

- It leaves the injured party with the choice of applying the compensation to replace the lost asset, if the benefit derived from the asset exceeds the replacement cost;

the county also incurred a net cost of \$1.3 million over 40 years to pay for bonds used to build the original road that runs by Fontana Reservoir. If compounded, this would approximate a total of \$9.5 million today. . . . Finally both bills would forgive repayment of a loan made to Swain County by the Farmers Home Administration of the Department of Agriculture for the construction of a high School.”).

¹⁸ See e.g. S.1947 98th Congress; See also Testimony by U.S. Senator Terry Sanford Subcommittee on Public Lands, National Parks, and Forests, Senate Committee on Energy and Natural Resources, June 23, 1987 (“This settlement should consist of the payment of \$9.5 million to Swain County, as well as the retirement of a \$1.6 million Farmers Home Administration loan, as provided for in the bill.”).

¹⁹ Resolution of the Swain County Board of Commissioners, December 12, 1983.

- Or the party may keep the compensation without replacing the asset if the replacement cost exceeds the benefit derived from the asset.

Either way the net benefit is increased yielding a Pareto improvement, meaning society is better off from the action or choice. For this reason replacement cost is the default measure of compensation under our legal system. The National Park Service is currently considering a proposal to build a principal park road along the corridor identified in the 1943 agreement at an estimated cost of \$604 million. See Draft Environmental Impact Statement, North Shore Road at 2-22.²⁰

Given these costs and agreements made we can consider three approaches to determine a financial settlement.

Option 1: First, if Swain County was compensated in 1943 for the accepted \$1.7 million cost incurred for road construction, a lower bound measure for the benefits provided to the County by the road, what would be the value of that sum today?

In order to arrive at a settlement value for this approach, we must project:

- Swain County received \$1.7 million.
- Swain County received it in full in 1943.
- A nominal interest rate over the time period, which implies level of risk at which the funds would be invested.
- A compounding rate (daily, monthly, quarterly, annually).

If we assume a risk-free investment in 5-year US Government instruments, which are compounded quarterly and have earned on average over this time period 5.73%, a \$1.7 million payment in 1943 would be valued today at \$58,688,661. Alternatively, assuming a moderate risk 20-year US government instrument earning 6.48% percent per annum compounded quarterly, the

²⁰ This cost includes \$589.7 million in capital costs and \$14.3 million in additional Operations and Maintenance costs associated with construction.

value in 2005 is \$92,953,848²¹. Because of limitations North Carolina law places on investment options available to North Carolina counties, these two treasury strategies are reasonable estimates of what their portfolio may have earned.²²

Option 2: The US government is currently considering a full replacement of the asphalt road for a proposed estimated sum of \$604 million, including operations and maintenance costs associated with construction, in discounted 2005 dollars (a lower standard road is also under consideration at a cost of \$359.2). The Government is also considering partial build alternatives for proposed estimated sums ranging from \$14.2 million to \$152.7 million, including operation and maintenance costs.²³ The present value of the cost estimate is a maximum willingness to pay to compensate for the losses from the original road. This amount can be seen as the upper bound for the level of compensation awarded to the County. This is however based solely on the Government's willingness to pay and not on a value of lost benefits. This is the replacement cost approach where efficiency gains occur if the County is compensated and allowed to choose whether or not to rebuild. In this case the County has the option to rebuild if the benefits are greater than the costs and if not, they have the choice to not build and invest elsewhere in the County.

Given this reasoning, we can calculate a financial settlement amount using the proposed road costs. As above this requires several projections:

- That the County receives the replacement cost as compensation and can choose to rebuild or not.
- The payment schedule for the settlement.
- The time frame for building the road currently estimated at 15 years.

²¹ The 5-year and 20-year US Treasury instrument interest rate data was retrieved from the Federal Reserve <http://www.federalreserve.gov/releases/h15/data.htm> files tcm5y (5 year 1962-2004) and tcm20y (20 year 1953-2005) on October 4 and Oct 31, 2005 respectively, and from the National Bureau of Economic Research <http://www.nber.org/databases/macrohstory/rectdata/13/m13033b.dat> for the 5-year 1943-1961 data. The Federal Reserve data is for Treasury Constant Maturity bond rates.

²² See N.C. Code Ann. § 159-30(c) (providing a list of 13 permissible securities for investments by North Carolina local governments).

²³ Draft Environmental Impact Statement, North Shore Road at 2-22.

The second assumption is important as it has a significant impact on the amount of funds the County may wish to request and how they specify their request. The cost estimate provided by the government is the 2006 present value of the stream of construction expenditures over a 15-year period. Draft Environmental Impact Statement, North Shore Road at 2-22. Thus there is no need for us to discount the sum given.

How a \$604 million settlement is paid to Swain County makes a significant difference for the actual sum received. If the County is awarded \$604 million in *today's* dollars, to be paid out equally across the 15-year time frame, then the County would receive an annual payment of \$40,266,666. Using a 10% discount rate²⁴, the discounted present value of those payments to today's dollars is \$306 million dollars. This means that they can receive a lump sum of \$306 million today, or receive the \$40.2 million each year for 15 years, and at the discount rate of 10% these amounts are valued equally by the County. Alternatively they could receive \$604 million this year, the total value of the cost to rebuild the road, if the Government were willing to pay this sum in a single payment.

Option 3: As described above, Swain County agreed to a settlement with the United States in 1984 for a sum of \$11.1 million in cash and debt forgiveness. However, the bill presented to congress to pay this settlement did not pass. This amount lies between Swain County's minimum willingness to accept and the United States' maximum willingness to pay in 1984 for failure to build the promised road. Using this amount as a starting point to calculate a current value in 2005 dollars yields values ranging between \$48 million and \$52 million depending on the compounding assumed. Table 1 below summarizes the settlement options.

²⁴ The 10% discount rate assumes Swain County has a short time window and values dollars received earlier more highly than those received later. This is a reasonable assumption given Swain's more immediate needs and it is the more conservative approach. Note however, changing the discount rate to 5% yields a significantly higher present value of \$418 million.

Table 1: Possible Alternative Settlement Values for Options 1, 2, and 3.

Compounding	Option 1 1.7 million in 1943		Option 2 \$604 million	Option 3 11.1 million in 1984
	$R = 5.73\%$ ²⁵	$R = 6.48\%$ ²⁶	2005 award (\$40.26 million annual payment)	$R = 6.90\%$ ²⁷
Annual	\$53,794,678	\$83,381,087	\$306,272,293 ²⁸	\$48,196,194
Quarterly	\$58,688,661	\$92,953,848	na	\$52,631,233

A. Settlement Payments

To construct an investment scenario, we must make reasonable projections, based on generally accepted financial practices, about how Swain County will draw from the settlement funds each year for annual expenditures or capital projects.

First, we must project whether the County will spend down the principal from its investments or spend only income. We must also make projections as to what portion of annual investment income will be reinvested. Previous bills introduced in Congress to award a financial settlement to the County required that the entirety of the financial settlement be invested and principal from the investment account will not be spent absent a County referendum authorizing such expenditure.²⁹

²⁵ 5 year US Treasury average rate between 1943 and 2004. The 1943 – 1961 data was retrieved from the national Bureau of Economic Research, website: <http://www.nber.org/databases/macroeconomy/rectdata/13/m13033b.dat>. The 1962-2004 data was retrieved from the Federal Reserve website: <http://www.federalreserve.gov/releases/h15/data/a/tcm5y.txt>.

²⁶ Average monthly US 20-year Treasury between 1/1953-9/2005, years 1/1987-9/1993 are missing <http://www.federalreserve.gov>

²⁷ Average monthly US 20 -year Treasury between 1/1984-9/2005, <http://www.federalreserve.gov>.

²⁸ This represents a lump sum payment paid in full in 2006 that is equivalent to receiving \$604 million paid over 15 years.

²⁹ See e.g. H.R. 3567 98th Congress 1st Session; S. 1947 98th Congress 1st Session; H.R. 4262 98th Congress 1st Session; H.R. 2002 99th Congress 1st Session.

Based upon these facts and upon standard investment procedures for institutional investors managing endowment accounts to grow with inflation, we have incorporated the following projections:

- The County only spends income from the endowment.
- The County spends ½ the annual income from the endowment, returning the remainder to the account in order to build principal.
- The account earns 8% annually.³⁰
- Interest is compounded quarterly.
- Income is drawn from the accounts annually at the end of each year based upon past earnings.

Table 2 below shows the stream of payments for a 10-year period from \$92,953,848, settlement option 1 presented above, and from \$52 million, which approximates settlement option 3, above, and the settlement value currently under consideration. These amounts were selected because they are supported by the analysis and because they are considered possible outcomes of the current political process. The scenarios assume the settlement amounts are paid in 5 annual increments over the first five years after the settlement. Using interest rates of 6% and 8%³¹ and assuming only one-half of the annual earnings are withdrawn, the first ten years of receipts from the settlement are given below in Table 2.

³⁰ Although Swain County is limited in their investment strategies for operational funds, they can apply for special legislation to expand the investment instruments available to them for this account. Such legislation has been given to two local governments in North Carolina (Winston-Salem and Guilford County). Thus the range of investments available for a special legislation account can potentially return 8%. Personal communication with Jack Vogt, Professor Of Public Finance and Government, School of Government, UNC-Chapel Hill and the NC Institute of Government.

³¹ See fn 31.

Table 2: Annual Receipts For Two Settlement Amounts And Two Alternative Interest Rates Over Ten Years. (Assumes 1/2 withdrawal rate)

	\$52,000,00		\$92,953,848.00	
Year	0.06	0.08	0.06	0.08
0	1/2 for withdrawal	1/2 for withdrawal	1/2 for withdrawal	1/2 for withdrawal
1	\$241,090	\$428,647	\$430,967	\$766,238
2	\$650,364	\$874,961	\$1,162,574	\$1,564,058
3	\$989,409	\$1,339,671	\$1,768,642	\$2,394,761
4	\$1,338,856	\$1,823,534	\$2,393,304	\$3,259,703
5	\$1,699,025	\$2,327,340	\$3,037,133	\$4,160,293
6	\$1,751,154	\$2,423,264	\$3,130,318	\$4,331,764
7	\$1,804,883	\$2,523,142	\$3,226,362	\$4,510,303
8	\$1,860,260	\$2,627,136	\$3,325,352	\$4,696,200
9	\$1,917,336	\$2,735,416	\$3,427,380	\$4,889,759
10	\$1,917,336	\$2,848,159	\$3,532,538	\$5,091,295

VI. Self-Development Scenarios

The scenarios show options that are available to the County from a North Shore Road settlement with their associated predicted outcomes. They are designed to be as realistic as possible based on past experience in the County and current economic development strategies adopted by the County and the region. The scenarios illustrate what may be possible for the community. Because one of the prime advantages of the financial settlement is its flexibility, the financial settlement could be invested in any number of combinations based on any number of local government priorities that might prevail at that time. The objective here is not to suggest an individual scenario to Swain County, but rather to provide a framework for understanding the potential outcomes of a financial settlement.

To build the scenarios we made several projections about how much money Swain County received, how they invested it, their pattern of withdrawal, their expenditure pattern, and the outcomes from that expenditure. The assumptions are based upon a literature review and

interviews with County stakeholders, experts, and others with knowledge of the County's economy and its potential. Section IV of this report discusses the findings of these discussions and the literature.

Four scenarios are created that represent the combinations of two possible settlement amounts (\$92.9 and \$52 million) with two possible outcomes regarding the success of self-development (new jobs created or no new jobs created). The scenarios incorporate projections about the flow of funds into the County from each settlement option and the expenditure strategies including the following:

- The County receives the settlement sum in five equal payments over a five-year period.
- The County receives 8% on average annually on their investments³².
- The County withdraws only 1/2 of the annual receipts from the account and the remainder is reinvested³³.
- The County borrows for capital project expenditures, servicing the debt from the annual receipts.
- Capital project expenditures include the broadband investment, a justice center, school facilities, and County infrastructure such as water and sewer, downtown revitalization, or a certified industrial site.
- After salary enhancements and capital projects the remaining funds each year are allocated to property tax reduction. This varies from year to year requiring a different mil rate each year.
- Teacher and essential County personnel salary supplements are funded annually with a one time 25% increase for essential personnel and \$1000 annual supplement for teachers³⁴.
- The annual teacher stipend of \$1000 is assumed to increase by 3% a year.

³² See fn 31.

³³ Ibid.

³⁴ These amounts were provided as estimates of possible enhancements that would allow Swain County to become more competitive with neighboring counties for employees in these job categories. (Personal communication with Ken Mills, Director Swain County Economic Development)

- The 25% one-time increase for essential personnel is phased in at 5% per year with an additional 3% on top of that for the \$52 million settlement³⁵. Because a larger sum of annual funds are available from the \$92 million settlement, the essential personnel salary increase is phased in sooner at 5% in the first year, 15% in the second, and 5% in the third. The teacher salary increase is the same for both amounts.
- In addition to the faster phase in for salaries, the higher settlement amount allows the County to construct the schools capital project and to phase in the other capital projects sooner.
- Annual debt service calculated using a simple interest calculation and a 5.5% interest rate.
- Salary supplements and broadband investment are the top priority for the County.
- The projected impacts for broadband and other investments are given in Table 7 below.
- Four scenarios are run, one projecting a low impact from Broadband (no new jobs) and the other a high impact (new jobs).
- The high impact projection is set at 50 new self-development jobs for the \$52 million settlement and at 90 new self-development jobs for the \$92.9 million settlement value.
- Because self-development strategies can attract a broad range of new businesses, we assume that resulting jobs will concentrate in miscellaneous professional and technical services and business support services.

An 8% annual return was selected based upon what could be received by accounts with diversified low to moderate-risk investments of the sort allowed by NC special legislation for Swain County³⁶ in order to develop a scenario that is reasonable. The intent is to avoid over-optimism regarding the settlement and the potential annual injections the County may receive. Table 2 shows the total receipts from the settlement amounts.

³⁵ The difference in the funds needed to support a 3% annual increase and the additional 5% is calculated and attributed to the settlement account. This assumes that the county would have given 3% increases anyway, so our analysis then looks only at the injections from the settlement, not injections that may have occurred anyway.

³⁶ Personal communication with Jack Vogt at the NC Institute of Government confirmed the reasonableness of this assumption.

Although the County cannot state today what future County officials may do and for what projects or programs citizens would vote, interviews with County stakeholders and review of local press revealed several critical areas needing funding in the next 5-10 years:

- Increasing salaries for essential County personnel (Fire, emergency services, police etc.) in order to reduce turnover and bring salaries up to neighboring County levels;
- Increasing teacher salaries and funding several important capital projects for economic development.³⁷

In addition, property tax reduction has been proposed.³⁸ Tables 3 and 4 show estimates of potential expenditure strategies to meet the various needs identified by County stakeholders.

The first priority is the salary enhancements. Given there are insufficient funds in the first year to fully fund the proposed amounts of 25% increase for essential personnel and \$1000 bonuses for teachers, it was assumed the teacher bonuses would be fully funded the first year and the essential personnel increase would be phased in at 5% per year for the \$52 million settlement and at 5% the first year, 15% the second, and 5% the third for the larger settlement.

In addition a 3% inflation increase was accounted for each year. The difference was calculated in the funds needed to support a 3% annual salary increase and those needed for the additional percentage added on top and attributed the latter to the settlement account. This assumes that the County would have given 3% increases anyway, so the analysis then looks only at the injections from the settlement, not injections that may have occurred anyway. The annual teacher stipend of \$1000 is assumed to increase by 3% a year.

Table 3 shows the salary enhancement amounts needed under these assumptions and the surplus of funds remaining for other County priorities.

³⁷ See Leaders discuss population growth, economy at SCC forum, Smoky Mountain News, 3-8-06; Cash: a better deal than a road, Smoky Mountain News, 2-8-06; interview with Glen Jones, Bill Gibson, Ken Mills.

³⁸ See New property values shock some, Pete Lawson, *Smoky Mountain Times*, 3-18-05; Resolution of the Swain County Commissioners, February 11, 2003 (noting that financial settlement would “provide a stable system of taxation without increases in taxes”).

Table 3a: Annual Expenditures Needed For Salary Enhancement with \$52 million settlement

Year	Annual Payment from \$52 million at 8%	Essential Personnel Salary Increase	Teacher Stipend	Total Salary Enhancement Needed	Surplus
1	\$428,647	\$167,500	\$150,000	\$317,500	\$111,147
2	\$874,962	\$353,676	\$154,500	\$508,176	\$366,785
3	\$1,339,671	\$560,202	\$159,135	\$719,337	\$620,335
4	\$1,823,535	\$788,890	\$163,909	\$952,799	\$870,736
5	\$2,327,341	\$1,041,707	\$168,826	\$1,210,533	\$1,116,807
6	\$2,423,265	\$1,072,958	\$173,891	\$1,246,849	\$1,176,415
7	\$2,523,142	\$1,105,147	\$179,108	\$1,284,255	\$1,238,887
8	\$2,627,136	\$1,138,301	\$184,481	\$1,322,783	\$1,304,354
9	\$2,735,416	\$1,172,450	\$190,016	\$1,362,466	\$1,372,950
10	\$2,848,160	\$1,207,624	\$195,716	\$1,403,340	\$1,444,820
Total over ten years		\$8,608,456	\$1,719,582	\$10,328,038	

Table 3b: Annual Expenditures Needed For Salary Enhancement with \$92.9 million settlement

Year	Annual Payment from 92.9 million at 8%	Essential Personnel Salary Increase	Teacher Stipend	Total Salary Enhancement Needed	Surplus
1	\$766,239	\$167,500	\$150,000	\$317,500	\$448,739
2	\$1,564,059	\$715,979	\$154,500	\$870,479	\$693,580
3	\$2,394,762	\$952,032	\$159,135	\$1,047,639	\$1,347,123
4	\$3,259,703	\$980,593	\$163,909	\$1,079,068	\$2,180,635
5	\$4,160,294	\$1,010,011	\$168,826	\$1,111,440	\$3,048,854
6	\$4,331,765	\$1,040,311	\$173,891	\$1,144,783	\$3,186,982
7	\$4,510,303	\$1,071,520	\$179,108	\$1,179,127	\$3,331,177
8	\$4,696,200	\$1,103,666	\$184,481	\$1,214,500	\$3,481,700
9	\$4,889,759	\$1,136,776	\$190,016	\$1,250,935	\$3,638,824
10	\$5,091,296	\$1,170,879	\$195,716	\$1,288,464	\$3,802,832
Total over ten years		\$9,349,265	\$1,719,582	\$10,503,935	

Tables 4a and 4b below show the remaining funds and how they can be spread across debt service, grant matching, and tax reduction. Again, several assumptions were made. First, it is assumed the broadband project is funded first through borrowing \$2 million at 5.5%. The Justice Center requiring \$10 million in borrowing comes later when the funds are available to service both the broadband and the Justice Center debt.

The schools project is not included in the first scenario as the County cannot afford the debt service in the first ten years. However with the larger settlement the County can afford school and additional capital projects such as water and sewer, downtown revitalization, or a certified industrial site. Selecting the priority is based on the County preference and availability of resources. If a project is too expensive then the project next in the priority list that is afforded is selected.

It is assumed the County carries their debt at least until year ten and then may begin paying down the debt after this year. Given the assumptions for salary expenditures and debt service, the remaining funds can be used for tax reduction. Column 4 shows the funds available for tax reduction. With the larger settlement, tax reduction expenditures are \$10,860,444 over ten years and this is a significant increase from the original settlement amount.

Table 4a: Funds Available for Debt Service, Tax Reduction, and Other Capital Projects (\$52 million)

Year	Surplus from Table 3a above	Amount Needed for Debt Service	Amount available for Tax Reduction	New Mil rate
1	\$111,147		\$111,147	0.32
2	\$366,785	\$110,000	\$256,785	0.32
3	\$620,335	\$220,000	\$400,335	0.31
4	\$870,736	\$220,000	\$650,736	0.30
5	\$1,116,807	\$770,000	\$346,807	0.34
6	\$1,176,415	\$770,000	\$406,415	0.34
7	\$1,238,887	\$770,000	\$468,887	0.35
8	\$1,304,354	\$770,000	\$534,354	0.36
9	\$1,372,950	\$770,000	\$602,950	0.36
10	\$1,444,820	\$770,000	\$674,820	0.37
Total for ten years		\$5,170,000.00	\$4,453,236.00	

Table 4b: Funds Available for Debt Service, Tax Reduction, and Other Capital Projects (\$92.9 million)

Year	Surplus from Table 3b above	Amount Needed for Debt Service	Amount available for Tax Reduction	New Mil rate
1	\$448,739	\$220,000	\$228,739	0.31
2	\$693,580	\$220,000	\$473,580	0.30
3	\$1,347,123	\$770,000	\$577,123	0.30
4	\$2,180,635	\$1,870,000	\$310,635	0.33
5	\$3,048,854	\$1,870,000	\$1,178,854	0.26
6	\$3,186,982	\$1,870,000	\$1,316,982	0.26
7	\$3,331,177	\$1,870,000	\$1,461,177	0.26
8	\$3,481,700	\$1,870,000	\$1,611,700	0.26
9	\$3,638,824	\$1,870,000	\$1,768,824	0.25
10	\$3,802,832	\$1,870,000	\$1,932,832	0.25
Total for ten years		\$14,300,000.00	\$10,860,446.00	

Tables 4 *a* and *b* also show the impact of tax reduction on the County mil rate. To simplify, it is assumed the property assessment remains constant³⁹ over the ten-year period at \$1.079 billion and that the net revenues needed, after other revenue sources, increases by 3% per year. The mil rate then also increases each year as County funding needs rise⁴⁰.

In the low settlement scenario although funds for tax reduction become available in the first year and onward and they reduce the need to increase the mil rate, the mil rate still increases to .37 by year ten. With the larger settlement amount the mil rate increases only to .33 in year 4, but then declines to .25 by year ten.

Table 5 shows the potential rise in mil rates if settlement funds are not received. Instead of increasing the mil rate to 42 cents per \$100 of property value by year ten, the County would only

³⁹ Although county is expected to continue to experience rapidly escalating land prices as elsewhere in WNC, it is common for counties to offset rising land values with decreasing mil rates. What is most important is that the County continues to meet their revenue needs. Our analysis is based upon revenue needs rather than land values thus this simplification is reasonable for the scenarios.

⁴⁰ This does assume other revenue sources remain constant, a strict assumption as we would expect these sources to also increase over time thus the net revenue needs could be smaller. Of course they can also be larger.

need an increase the rate to 37 cents per \$100 in property value in the low settlement case and could reduce it to 25 cents per \$100 in the high settlement value case. In year ten this puts \$674,000 or \$1.9 million back into resident pockets to spend in the local and regional economy. For example a \$150,000 home would save \$255 in year ten with the reduction in the mil rate from .42 to .25.

Table 5: Revenues Needed and Mil Rate Levels without a Settlement

Year	2005 County Valuation	Tax Revenues Needed	Mil Rate
1	\$ 1,079,000,000.00	\$3,560,700.00	0.33
2	\$ 1,079,000,000.00	\$3,667,521.00	0.34
3	\$ 1,079,000,000.00	\$3,777,546.63	0.35
4	\$ 1,079,000,000.00	\$3,890,873.03	0.36
5	\$ 1,079,000,000.00	\$4,007,599.22	0.37
6	\$ 1,079,000,000.00	\$4,127,827.20	0.38
7	\$ 1,079,000,000.00	\$4,251,662.01	0.39
8	\$ 1,079,000,000.00	\$4,379,211.87	0.41
9	\$ 1,079,000,000.00	\$4,510,588.23	0.42

The above discussion explains how the scenario is defined for the annual expenditures. Impacts from these expenditures include the increased spending that results from salary increases, tax reduction, and direct project expenses. In addition to the direct expenditure impacts, the broadband project in particular, but also the schools and other projects, will improve the County's ability to attract new business.

Swain County is interested in attracting small and medium size firms that employ skilled labor and thus pay wages higher than the service industry jobs that currently result from the tourism industry. Swain's employment base is small with a labor force of 6,911 in January 2005 peaking to 7,329 in July⁴¹. The unemployed range from a low of 336 in July to 742 in January⁴².

⁴¹ NC Employment Security Commission

⁴² Ibid.

Because Swain County is very dependent on the tourism industry many jobs in the County are seasonal. In addition these jobs pay an average wage ranging between \$14,000 – \$35,000 per year. A County goal is to bring in more year-round jobs that pay higher average wages. Table 6 shows the wage ranges for several industry sectors that have been identified by Advantage West as sectors suited for the Swain County region.

Table 6: Annual Wages for Clusters Identified for the Swain County Region.

CLUSTER	Average US 2000 annual wage ⁴³	Regional wages 2002 ⁴⁴	Swain County wages ⁴⁵ 2005
Hospitals, Labs and Specialized Medical Services ⁴⁶	na ⁴⁷	\$29,280	\$23,899-\$48,796 ⁴⁸
Information Technology and Instruments	\$93,024	\$26,005	\$38,240 ⁴⁹
Recreation and Tourism	\$21,229	\$16,164	\$14,080-\$35,247 ⁵⁰
Vehicle Parts and Assembly	\$47,880	\$23,029	na
Metalworking and Industrial Machinery	\$38,052	\$30,141	na
Chemicals and Plastics	\$34,328 - \$48,452 ⁵¹	\$34,057	na
Retirement and second homes ^a	na	na	\$32,907-\$39,325 ⁵²
Advanced manufacturing ^b	na	na	na
Food production ^b	\$29,405 ⁵³ - \$33,646 ⁵⁴	\$27,250	\$20,816
Commercialization of native plants ^b	\$29,405 ⁵⁵ - \$33,646 ⁵⁶	na	\$24,439 ⁵⁷
Home-based crafts ^b	na	na	\$22,049-\$36,711 ⁵⁸
Homeland security ^b	na	na	\$36,709 ⁵⁹

⁴³ Ketels, Christian H. M., 2003

⁴⁴ Estimated from the "Clusters for Highland Counties" data tables from Advantage West. Estimate is an average quarterly wage (total wage divided by number of employees, therefore all skill levels are averaged), multiplied out to an annual wage.

⁴⁵ Employment Security Commission, Labor Market Information, Employment and Wages in NC by Occupation, 2005 Q1, experienced wage level.

⁴⁶ This does not include doctor salaries.

⁴⁷ Data not available

⁴⁸ SIC 29000 and 31000

⁴⁹ SOC cod 15-0000, computer and mathematical occupations

⁵⁰ The range includes salaries from the Hotel sector 11-9081, 43-4081, and the Food sector 35-0000

⁵¹ Chemicals provides the higher wage, plastics, the lower in the range

⁵² SIC 47000 Construction and Extraction

⁵³ A broad category for all agricultural products

⁵⁴ A broad category for processed foods

⁵⁵ A broad category for all agricultural products

⁵⁶ A broad category for processed foods

⁵⁷ 45000 Advantage West region

⁵⁸ 271023 and 271013 provide a range

⁵⁹ SIC 33000 Protective Services

The success of any given economic development strategy will depend on a host of factors, many external to the County. We can, however, develop informed projections based on other county's experiences with broadband demand by businesses and conversations with business and community leaders on the importance of new high-speed infrastructure to attracting new businesses and cultivating local businesses. A recent study found that broadband successfully attracted 100 new jobs to a Georgia county and helped another business expand into a second location. (Youtie 2000) Historically, an important route to economic development has been the provision of infrastructure for business. Using both an optimistic and a pessimistic view, Table 7 presents two scenarios for the impact of the broadband and other capital projects in the County.

Table 7: Financial Settlement Economic Impacts and Their Assumed Scenario Values

Impact/Scenario	High	Low
Capital project expenses		
Educational ⁶⁰	20 million	
Technology ⁶¹	2 million	2 million
Criminal Justice	10 million	10 million
County infrastructure (water, sewer, certified industrial site, etc)	1,000,000	1,000,000
Other capital project (e.g. Downtown revitalization)	1,000,000	1,000,000
Annual Expenditures	Increase teacher (\$1000) and essential personnel (25%) salaries reaching full coverage in year five.	Increase teacher (\$1000) and essential personnel (25%) salaries reaching full coverage in year three
New Business Location	90 new jobs in 10 years	50 new jobs 10 years
Improved productivity/business retention	No business lost	No business lost
Tax reduction	Phased in as funds are available	Phased in as funds are available

⁶⁰ This refers to the capital investment needed in facilities for the K-12 and the community college system.

⁶¹ Technology refers to the building of middle and last mile broadband from the county connecting to the 'backbone' currently under construction in WNC by Balsam West. We are assuming Swain County will spend the necessary \$2 million to connect to the backbone and that their connection is part of a wider web of connection throughout the far western counties.

The 'high' scenario projects that the County is able to retain their existing businesses and that they attract new small and medium size firms who create 90 new jobs over ten years. Regional experience with both missed opportunities, businesses lost and businesses attracted to the region suggest this scenario is a reasonable optimistic view. A medical transcription firm needing 20 employees recently considered relocating to Jackson County, but chose not to because the county lacked sufficient high-speed access. In addition, a software and business services firm in Macon County has increased from under 100 employees to over 450 permanent employees in 25 years. This company is currently investing in broadband infrastructure for the region in order to ensure its growth into the future. These examples provide some insight into what may be possible for Swain County.

Our more pessimistic scenario projects new firms bring in only 50 new jobs over ten years. We also run two cases for each settlement amount with no new jobs attributable to successful economic development investments. Because self-development economic development strategies target infrastructure, like the broadband investment, that serve a broad range of home-grown and relocating businesses, we cannot know the mix of jobs that may be created as an investment. As a result, we use the job categories miscellaneous professional and technical services, and business support services for purposes of evaluating the income attributable to those jobs. This allows for jobs in a range of sectors including those in the clusters considered appropriate for western North Carolina.

VII. Scenario Results

The purpose of this analysis is to estimate the economic impact arising from the settlement and a program of self-development in Swain County. The economic impact is measured by the local economic activity, jobs, and income that can be attributed directly and indirectly to the program. For this study, the geographic location of the initial economic activity and the resulting impacts are at the county level.

Economic impacts measure the importance of the self-development strategy in terms of the local jobs it provides and the goods and services it consumes. Economic impacts include direct, indirect, and induced impacts.

Direct impacts are the immediate consequences of economic activities carried directly from the initial spending. Activities that generate direct impacts include employing labor, purchasing locally produced goods and services, and contracting for construction and capital improvements. Indirect impacts are secondary economic activities that are attributable to businesses buying and selling with each other. Examples of indirect impacts include services provided by hotels, restaurants, and retail businesses. Induced impacts represent the response by local industries caused by the expenditures of additional household income generated by the direct and indirect impacts. This impact takes into account the dependency of each economic sector on other economic sectors within a region.

For this economic impact analysis, IMPLAN modeling software was utilized. IMPLAN, Impact Analysis for Planning, is an input-output model developed by the Minnesota IMPLAN Group. The IMPLAN software performs calculations using the study area data to create economic models. IMPLAN allows construction of regional models (i.e. county-level for this analysis). The models are based on the national production functions (a regions resources and their production potential) and tailored to each county based on specific data (survey data and the state/county data). Models were constructed to identify secondary (indirect and induced) and total impacts associated with direct employment, wages and spending.

There are three general types of economic events for which economic impacts were calculated. First were *capital projects*; depending upon the scenario these included the broadband investment, the Justice Center, school facilities, water and sewer developments, and downtown revitalization. In the model, the impacts of capital projects are calculated by identifying the economic activities that must occur in local individual industries for each capital project to take place (for example, specific construction materials, and labor inputs by industry). Because of the relatively small industrial base of Swain County, some specialized inputs for the capital projects

were unavailable locally, and came from outside the area and thus the model accounts for this leakage.

The second type of economic event was enhancements to *household income*; these include salary enhancements and property tax reductions. Direct impacts were calculated as increases to household income. The third type of economic event was creation of *new jobs*. The new jobs were those jobs expected as a result of other self-development activities. For purposes of the model, new jobs were assigned to two IMPLAN industry sectors, *miscellaneous professional and technical services*, and *business support services*. These sectors are highly mobile, less dependant on industrial sites, attracted to quality-of-life amenities, and are typically small.

For this analysis expenditures occurring over a ten-year period were aggregated and expressed in 2004 dollars. These expenditures are then treated as a single year injection, although it is recognized that the expenditures take place over various time periods. There is no benefit for the purposes of this analysis to breaking out the impacts individually on a year-by-year basis. The final impacts are therefore a sum of economic activity over the entire ten-year period, rather than the amount taking place in each of the ten years. One important exception is the resulting economic impact of the *self-development jobs (SD jobs)*. These *SD jobs* are the jobs resulting from the attraction of new business or growth of existing business due to the local amenities such as broadband and infrastructure improvements. The economic impacts from these jobs would be expected to be ongoing, and recurring annually, e.g. they are permanent jobs.

Table 8: Employment Impacts from Four Scenarios

	\$92.9 M @ 8%	\$92.9 M @ 8%	\$52 M @ 8%	\$52 M @ 8%	SD Jobs	SD Jobs
	Includes 90 SD	W/O 90 SD	Includes 50 SD	W/O 50 SD	50	90
	Jobs	Jobs	Jobs	Jobs		
Direct	581.6	491.6	191.7	141.7	50	90
Indirect	77.1	71.8	19.6	16.7	2.9	5.3
Induced	53.2	47.3	16.7	13.4	3.3	6
Total	711.9	610.6	228.1	171.8	56.3	101.3

Tables 8 and 9 show the final results from the scenario analysis. In Table 8, we see that there is a significant difference between the jobs impact from the lower settlement and the higher settlement. Results from the lower settlement show the County has the potential of creating at least 228 jobs years of which 56 are permanent jobs that would continue beyond the ten-year scenario period. The high settlement potentially creates as many as 700 job years with 100 of those as permanent.

The difference comes from the ability to add the schools facilities and to give more back to the population through tax reduction. These results rely upon the assumptions underlying the model. In the case of the permanent jobs, we were conservative in our projections. Easily Swain could be more successful and have another ‘Drake’ move into the county creating upwards of 400 jobs over 20 years or they may only be as successful as LaGrange, Georgia creating only 100 jobs in a 5 year time period⁶². While it is not possible to forecast with precision the actual success that will result from a program of self-development, the results above provide a basis from which to make an informed projection.

The scenarios also demonstrate the potential flexibility of a monetary settlement for Swain County. A consequence of a settlement is a diverse range of community objectives achieved by the investments made using the settlement income and their associated economic impacts.

Table 9 shows the diverse range of possible job categories where job creation may occur and shows the income received by labor from each settlement scenario. It is important to note the significant difference again from the two settlement amounts. The contribution to labor income can range from \$4 million to \$14 million depending on the settlement amount and the self-development success.

⁶² Personal communications with Drake and Youtie (2000)

Table 9: Total Employment Impacts By Industry from Four Scenarios

	\$92.9 M @ 8%	\$92.9 M @ 8%	\$52 M @ 8%	\$52 M @ 8%	Self Development Jobs (SD)	Self Development Jobs (SD)
Major Industry Sectors	Includes 90 SD Jobs	W/O 90 SD Jobs	Includes 50 SD Jobs	W/O 50 SD Jobs	50	90
Ag, Forestry, Fish & Hunting	2.5	2.4	1.4	1.4	0	0.1
Utilities	1.5	1.4	0.7	0.7	0	0.1
Construction	384.5	384.4	67.3	67.2	0.1	0.2
Manufacturing	4.6	4.5	1	1	0	0
Wholesale Trade	3.6	3.5	1.5	1.4	0.1	0.1
Transportation & Warehousing	3.3	3	1.3	1.1	0.1	0.3
Retail trade	88.2	86	38.1	36.9	1.2	2.2
Information	2.4	2.1	1.1	0.9	0.2	0.3
Finance & insurance	8.3	7.9	4.2	4	0.2	0.4
Real estate & rental	5.3	4.9	2.6	2.3	0.3	0.5
Professional- scientific & tech svcs	62	15.9	30.1	4.5	25.6	46.1
Administrative svcs	53.7	6.8	28.2	2.1	26.1	46.9
Educational svcs	1.2	1.2	0.7	0.7	0	0.1
Health & social svcs	21.8	20.9	12.1	11.6	0.5	0.9
Arts- entertainment & recreation	3.6	3.5	2	1.9	0.1	0.2
Accommodation & food svcs	35.5	33.9	20	19.1	0.9	1.6
Other svcs	24.8	23.7	13.3	12.7	0.6	1.1
Government	5.1	4.8	2.5	2.4	0.2	0.3
Total	711.9	610.8	228.1	171.8	56.3	101.3
Total Impacts By Labor Income						
Increased Labor Income (2004 dollars)	\$14,675,971	\$13,039,476	\$4,626,030	\$3,716,866	\$909,164	\$1,636,494

Finally, this study has considered a time frame of ten years due to the limitations of the IMPLAN program. However, in order to project further into the future we considered what the County might receive from the settlement in an average year after the loans for the initial capital projects

have been paid. As shown in Table 10 below, if Swain County receives on average \$3.5 million to allocate for tax reduction or salary enhancement - both activities that increase household income - then an additional 22.5 permanent jobs each year are created with an annual income of \$502,000. Of course in later years the County will receive more than \$3.5 million annually (in 2050 they could receive \$10 million) and thus they have the potential for further investment in the County and further job creation.

Table 10: Potential Employment and Income Impacts from on-going annual supplement.

Employment Impacts	
	On-going Annual Income Supplement
Direct	19.1
Indirect	1.6
Induced	1.8
Total	22.5
Total Employment Impacts By Industry	
	On-going Annual Income Supplement
Major Industry Sectors	
Ag, Forestry, Fish & Hunting	0.3
Utilities	0.2
Construction	0.1
Manufacturing	0.1
Wholesale Trade	0.3
Transportation & Warehousing	0.2
Retail trade	7.2
Information	0.2
Finance & insurance	0.8
Real estate & rental	0.5
Professional- scientific & tech svcs	0.6
Administrative svcs	0.3
Educational svcs	0.1
Health & social svcs	3.5
Arts- entertainment & recreation	0.4
Accomodation & food svcs	3.9
Other svcs	3.2
Government	0.5
Total	22.5
Total Impacts By Labor Income	
Increased Labor Income (2004 dollars)	\$502,234

VIII. Conclusion

A financial settlement potentially provides Swain County with flexibility to address current priorities of the County as well as unanticipated future needs. The flexibility of a settlement also would provide the County with resources to pursue a strategy of economic self-development and targeted industrial recruitment that would reduce the County's economic dependency on tourism by diversifying the job base and providing more year-round and higher-paying jobs.

Construction of the North Shore Road, in contrast, would exacerbate underemployment in the County and deny the County the resources necessary to address current and future needs for infrastructure and services.

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