

The Economic Impact of the University of West  
Florida on the Northwest Florida Economy



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# The Economic Impact of the University of West Florida on the Northwest Florida Economy

## Final Report

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## **Executive Summary**

State government involvement in economic development policymaking has grown in recent years. Trends such as fiscal decentralization from federal to state governments and an increasingly global economy have intensified interstate competition for high wage employment. Because of this, economic development has been put on an equal footing in legislative budgets with education, transportation, welfare, and health care. In this context, state budget authorities see universities as important engines for local economic development. It is therefore important that universities be able to quantify the impact that their numerous economic development activities have on their communities.

The University of West Florida has a significant economic impact on the Northwest Florida region. The existence of the university provides not only quantifiable economic impacts on the region but it also provides services that are beneficial to the area but difficult to measure in dollar terms. The purpose of this report is to estimate the magnitude of the impact on the Northwest Florida economy that is attributable to the university, and clarify the impact that university activities have on the other industry sectors in the region.

The estimates provided in this report capture the local economic impact generated by the UWF Fiscal Year 2000-2001 operating and capital budget, spending of wages paid to university employees, student expenditures for living and entertainment, and expenditures of visitors who come into the area from outside the Northwest Florida region. Standard multiplier techniques were then applied to these data to estimate the overall magnitude of the economic impact that the university exerts on the various sectors of the local economy, and to trace the relative impact on each industry sector. Estimates of total spending, employment, tax revenue, and wages are calculated. These estimates are for the four-county region that includes Escambia, Santa Rosa, Okaloosa and Walton counties, and all measures of impacts pertain to businesses and households located in this region. Each of the measures of economic impact reflects the value

generated by industry for one annual calendar year of production.

This study underestimates the impact of UWF, as it does not measure the impact of many of the educational, business, or community services that are available to the region due to the local presence of the university. In addition to the quantifiable economic impact associated with the university, there are also numerous intangible benefits. These benefits include the contribution that UWF makes in the generation of a well educated, knowledgeable, and skilled work force at relatively low search cost to regional employers in the public and private sectors. Benefit flows also include the availability of professional consulting services, computer and library services, tutoring, seminars, conferences, and workshops hosted by university faculty and staff on a pro bono basis or at minimal cost. University faculty and staff also participate in meaningful ways with numerous regional organizations in community outreach programs. A plethora of professional, social, cultural, and sporting events would not occur in the area without the support and direction of the University of West Florida. Each of these contributions have a significant but difficult to measure economic impact on the regional economy, which was not included in this analysis.

One measure that captures some of the impact of the contributions that are difficult to quantify is the difference in earnings between university graduates and non-graduates. Reflected in the earnings differential is the increased productivity and value to a community that a university graduate offers. Therefore, the present value of this lifetime earnings differential is calculated for UWF graduates who have stayed in the area.

Among the key findings of the study are that the University of West Florida:

- generates approximately \$524 million in total annual sales (retail plus business-to-business sales of goods and services) in the Northwest Florida economy;

- supports about 8,828 jobs in the area that are directly or indirectly related to the university;
- generates local incomes and wages of approximately \$216 million annually.

The presence of the university not only generates economic benefits, it also increases the demand for public services. The cost of these public services are borne by municipalities that derive much of their income from real estate taxes. The tax exempt status of universities raises the question of the relative public costs of a university versus the public benefits that it generates. Even though UWF holds a tax exempt status, the spending generated by the university in the regional economy creates economic activity in economic sectors that comprise the area tax base. This analysis estimates that UWF generates approximately \$32.7 million in state and local taxes, compared to \$14.3 million in public service costs.

Presented in Table 1 is a summary of the overall economic impact of UWF. The various impacts of the university's capital and operating expenditures, student spending, visitor spending, and contribution to workforce productivity are delineated.

Table 1 - Summary of the Economic Impact of the University of West Florida

<b>Economic Impact of the University of West Florida</b>				
Overall Impact of the University of West Florida on the Economy	Direct	Indirect	Induced	Total
Total Spending (Output)	\$344,423,944	\$69,299,150	\$110,743,020	\$524,466,116
Income	\$145,390,729	\$28,247,899	\$42,511,976	\$216,150,604
Employment	5,996.0	1,076.6	1,756.3	8,828.9
Operating and Capital Budget (Including Wages, Expenses, and Construction)	Direct	Indirect	Induced	Total
Output	\$77,257,203	\$11,459,926	\$31,288,942	\$120,006,071
Income	\$47,169,307	\$4,735,690	\$12,016,973	\$63,921,970
Employment	1,569.5	176.0	496.3	2,241.8
Student Spending	Direct	Indirect	Induced	Total
Output	\$32,155,937	\$6,618,049	\$10,006,437	\$48,780,423
Income	\$12,264,729	\$2,743,556	\$3,840,153	\$18,848,438
Employment	634.6	109.4	158.7	902.7
Visitor Spending	Direct	Indirect	Induced	Total
Output	\$21,883,307	\$5,265,894	\$7,204,338	\$34,353,540
Income	\$8,933,144	\$2,130,699	\$2,765,186	\$13,829,029
Employment	526.9	87.0	114.3	728.1
NPV of UWF Graduate Wage Differential (A measure of UWF's contribution to workforce productivity)	Direct	Indirect	Induced	Total
Output	\$213,127,496	\$45,955,282	\$62,243,303	\$321,326,082
Income	\$77,023,548	\$18,637,954	\$23,889,665	\$119,551,168
Employment	3,264.9	704.1	987.1	4,956.2

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## I. History

In 1955, the Florida Legislature authorized the State Board of Education to locate a state university in Escambia County. The University of West Florida (UWF) became the sixth of ten universities of the State University System of Florida and received accreditation from the Southern Association of Colleges and Schools.

The initial building program represented a capital investment of approximately \$16 million. Existing buildings and above ground facilities are now valued at approximately \$197 million with an additional \$10 million in underground utilities and \$18.5 million invested in projects under construction. The University is located on a 1,600 acre campus in Pensacola, Florida. It also owns 152 acres of beach property on nearby Santa Rosa Island that provides opportunities for recreational, academic, and research pursuits. The university also operates a campus at Fort Walton Beach, a branch center at Eglin Air Force Base, and offices at Naval Air Station Pensacola, Hurlburt Field, and Whiting Field. These branches offer upper-division and graduate-level work to meet the educational requirements of central Panhandle counties.

The University of West Florida originally began as an upper-level institution enrolling juniors, seniors, and graduate students, with the first classes beginning in 1967. When the university opened its doors, it had 1,422 upper-level students. Freshmen attended the university for the first time in the fall semester of 1983 when a lower division was established. Currently, the university enrolls approximately 8,500 students in its College of Arts and Sciences, College of Business, and College of Professional Studies, 1,200 of whom live on campus.

In addition to the nearly 50,000 students that have graduated from the university, including many who have remained in the region, West Florida citizens have had the opportunity to attend non-credit courses and programs, to participate in university sponsored conferences, and to take advantage of the resources of the university. The John C. Pace Library houses 594,800 volumes and 4,500 current periodicals. The computer center offers 100 workstations connected to the Internet and national databases.

Furthermore, Northwest Florida residents have enjoyed university-sponsored recitals, concerts, plays, art exhibits, major athletic events, listened to music and news on the university's public radio station, and benefited from consultation with the academic centers and institutes. UWF intercollegiate athletics program fields 12 teams, which play full seasons in competition with other NCAA Division II and Gulf South Conference schools in the southeastern United States.

The majority of university students are residents of Florida's eight northwestern counties. However, 49 states and 74 countries have been represented in the student community, with over 150 international students attending UWF each year. The median student age is 22 years, the average age is 28.9 years, and the age range spans from 15 to 81 years. Approximately 59 percent of the student population are women, and 21 percent are ethnic minorities.

The University of West Florida offers Bachelors' degrees in 44 different disciplines with 94 specializations, Masters' degrees in 17 different disciplines with 42 specializations, and a doctorate degree in Education with 5 specializations. In addition to academics, many programs offer internships, field work, cooperative education, and the opportunity for study abroad. In recent years undergraduate internships have been available with NASA, Coca-Cola, Dean Witter, Sprint, UPS, NASCAR, the Environmental Protection Agency, Eglin Air Force Base, and Pensacola area companies such as WEAR-TV. UWF exchange students have studied in Austria, Canada, England, France, Germany, Japan, Mexico, Netherlands, Peru, and Portugal.

The university faculty and staff make significant contributions to the community in the form of public service. Innovations in education, science and technology, business, and government are made available to citizens through the university's centers and institutes funded by moneys from local, state, and federal government sources or from funds made available directly to the university from private sector sources. Center and institute activities include conferences, seminars and mini-courses, workshops, grant and contract research, special certificate programs, and one-on-one consultations.

The university has 239 distinguished faculty members, and 83% of all faculty hold the highest degree in their field. UWF faculty will receive over \$20 million this year in research grants. The following are just a few of the scholars, researchers, and professionals associated with UWF who have distinguished themselves:

- **Frank Andrasik** (Ph.D., Ohio University) is recognized nationally for his research in behavioral medicine and brain brightening.
- **Ronald Bush** (Ph.D., Arizona State University) is the author of *Marketing Simulation: A Decision Support System Approach*, a text currently used at such schools as Duke, Cornell, and Notre Dame.
- **Larry Day** (Ph.D., University of Minnesota) has been a Fulbright Scholar, led workshops for journalists, and lectured at universities in Latin America.
- **Kenneth M. Ford** (Ph.D., Tulane University), Director of the Institute for Human and Machine Cognition, is a leading researcher in artificial intelligence. He was Associate Director of NASA's Ames Research Center while on sabbatical from UWF.
- **Godfrey Franklin** (Ph.D., University of Alabama) completed a sabbatical with the Aboriginal Education Institute in South Australia in 1998. His research includes studies on the relationship of learning style with academic success.
- **Tom Groth** (M.A., University of Illinois) coaches one of the most successful student advertising teams in the country, "The Hot Shop." His teams have won three national titles and six regional championships in the past eight years.
- **Wade H. Jeffrey** (Ph.D., University of South Florida) is an Antarctic researcher who uses microbial ecology in combination with molecular biology to study the effects of ultraviolet radiation on marine microorganisms.

- **Douglas M. Jordan** (Ph.D., University of Florida), is the recipient of a NASA "Innovation in Research Award," and has been inducted into the Space Technology Hall of Fame for his contributions to digital processing of magnetic resonance images.
- **James S. Marsh** (Ph.D., Johns Hopkins University) is active in ballistic holography studies. He was a National Science Foundation post-doctoral fellow at Oxford and a lecturer at Queen's College, London.
- **Pam Northrup** (Ph.D., Florida State University) is the co-developer of a web-based Electronic Performance Support System (EPSS) for teachers.
- **Milton F. Usry** (Ph.D., University of Texas) is the co-author of *Cost Accounting*, a nationally prominent textbook which is currently in its twelfth edition.

## II. The Changing Role of Universities in Economic Development

The surge of reform initiatives in primary and secondary education has caused many states to consider similar changes in the postsecondary education system. Beginning in the early 1980's, the issues of educational reform shifted temporarily away from the questions of equity which were dominant in the 1960's and 1970's to a renewed focus on excellence and international competitiveness. The main focus of postsecondary reforms has been on better defining the mission of the university system and linking that to the goals and needs of the state (Lewis and Maruna, 1996). Furthermore, state legislatures are increasingly concerned about the link between higher education and state economic growth. A study conducted for the Joint Economic Committee of the U.S. Congress found, "In an extraordinary number of cases, a university played a major role in the history of the companies that have chosen to relocate." (Newman, 1987, 4) By some measures, Florida ranks poorly in economic development benefits from postsecondary education. For example, when compared to the best performing states, Florida ranks low in increase in personal income as a result of the percentage of the population holding a bachelor's degree (6% versus 11% increase). Additionally, higher education in Florida is receiving a declining share of state appropriations (see Figure 1).

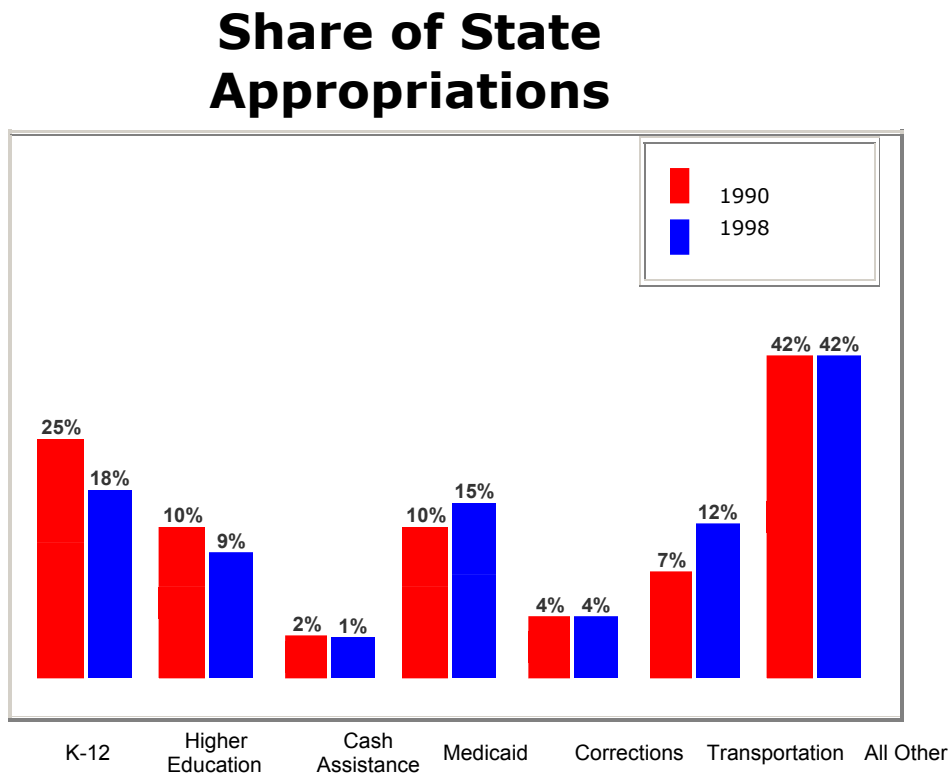
Over the last few decades, state's interest and involvement in economic development has increased. Their economic development efforts have been elevated in importance, grown in size, expanded in scope, and deepened in program and planning complexity. Limited resources and changing economic environments, however, require states to continually adapt their policies in their attempts to promote economic development within their state.

The limited fiscal capacities of states coupled with the limited aid offered by the federal government, force interstate competition for private investment to create jobs and tax revenues. This competition results in efforts to hold the ratio of taxes to services offered to a minimum. Each state attempts to maximize its economic competitiveness in an environment where business may exit to other states that offer a more attractive

business environment. Because the political costs and rewards in this economic competition are so high, recipients of state funding must clearly demonstrate the benefits that that funding purchases.

The increasing emphasis on economic development by state legislatures is causing many universities to reevaluate their traditional roles and to add new programs aimed at improving the economic outlook for their area. Universities are seeking to expand their role in economic development from *passively* assisting the community to a more *active* involvement in economic development activities. Traditional teaching and the de facto provision of economic stimulus by the university are examples of passive economic development because no specific economic development strategy is involved. Active economic development includes instating such programs as applied research, technical assistance to businesses, and technology transfer activities. These programs consciently contribute to the region's economic development by fostering a stronger relationship between the universities traditional functions and the needs of the business community. Universities involved in active economic development are responding to and participating in their region's economic transition with respect to traditional industries, emerging industries, international competitiveness, and the unique problems of rural and inner-city economic development. Applied research is being used to enhance traditional industry performance. For example, new frontiers of science are being applied with the goal of increasing agricultural industry output. The emergence of new industries and the university programs that support them are deliberate efforts of university research parks, business incubators, applied business research centers, and pioneering research programs in fields such as biotechnology, artificial intelligence, and telecommunications. Increasingly competitive international markets are causing universities to reevaluate the knowledge and skills required by a globally competent workforce. Similarly, the problems of inner-city and rural economic development are being addressed by small business development centers and public outreach programs. In other words, universities are actively involved in molding the economic future of their region.

Figure 1 – Florida Higher Education is Receiving a Declining Share of State Appropriations



### III. Review of the Literature

When the American Council on Education published its methodology for conducting postsecondary educational institution economic impact studies (Caffrey and Issacs, 1971) they set the standard for most of the research in this area that followed. The Caffrey and Issacs framework indicates that the economic impact of a postsecondary educational institution consists of three regional components: the impact on local businesses, the impact on local governments, and the impact on local individuals. Effects of the impact on local businesses include the net changes to business volume, local business property, and local banks' credit base. The impact on local government includes the net effects on government revenues, assets, and costs of municipal services and schools. Components of the impact on local individuals include the net effects on employment, income, and purchases of durable goods. This framework deliberately ignores long-range economic impacts, such as the enhancement of local workforce skills, the contribution of scientific research to manufacturing and industry, or the drawing power of the university to residents, research enterprises, or industry. Nor does this framework consider the effects on lifetime earnings or productivity of graduates. These long-range impacts were omitted from the framework due to the difficulty in assigning dollar values to "subjective" and "intangible" impacts (p. 1).

In spite of the difficulty in measuring long-range effects, these aspects of the regional economic impact of postsecondary educational institutions have become increasingly more important and interesting to state governments (Lewis and Maruna, 1996). According to the National Governors' Association (NGA, 1983),

State governments are critically situated to encourage and facilitate the process of technological innovation. They support the vast majority of the nation's public institutions of higher education where most university research and development take place ... State governments are in a position to build the kind of partnerships with education and industry that stimulate innovation and help to ensure its continued vitality and relevance. (pp. 8-9)

From the universities' perspective, the American Association of State Colleges

and Universities (AASCU, 1986) warns universities to recognize their perceived role as regional economic development assets, and to develop capacities and programs appropriate to that mission. They cite seven major university roles in economic development: human resource development, economic and policy analysis and research, capacity building for economic development by working with community organizations, technical assistance, research to develop new knowledge, technology transfer of newly developed knowledge to industry, and support of the development of new knowledge-based industries (p. 10).

Universities asked to justify in economic terms the allocation of state funds to their programs are developing new methodologies that attempt to quantify at least some of the more subjective and consequently difficult to measure long-range impacts. Recent studies (Bluestone, 1993; Lynch, 2001) expand their consideration of university impact to include measurement of the addition that universities contribute to the skill base of the region. Through higher education, a university produces a more skilled workforce earning higher incomes than they would without that education, and therefore paying more in taxes. These studies calculate the discounted present value of the difference between graduate and non-graduate lifetime incomes. Others question the validity of these calculations because they fail to fully consider the effects of worker migration, or because of the generally subjective nature of the measurement (Brown and Heaney, 1997).

Other recent studies have used computer input-output models to more accurately trace the flow of economic benefits within a regional economy (Goldstein, 1990). An input-output model is a set of equations describing the relationships that link the output of one industry with all other industries in an economy. These studies also provide the opportunity to consider the direct, indirect, and induced effects (“multiplier effects”) of changes in spending that are attributable to a university.

Acknowledging the difficulty of measuring long-term effects of a university, Elliot, Levin, and Meisel (1988) recommend measuring indirect linkages between changes in regional economic output and university programs, as opposed to attempting

to measure the direct linkages or outcomes. They contend that before changes in economic outcomes occur, indications of economic development should be evident at intermediate stages of the economic development process, and these indirect linkages to university programs should be easier to quantify. Their framework consists of:

- 1) Grouping existing university economic development programs by type;
- 2) Specifying appropriate program objectives by type of program;
- 3) Establishing criteria for the evaluation of program performance based on program objectives; and
- 4) Defining indicators for measuring program performance.

The need of universities to account for their long-range economic impact on the surrounding region, combined with the difficulty in measuring these impacts, should sustain interest in research that attempts to measure the economic impact of postsecondary educational institutions.

## IV. University Economic Impacts

The standard way of estimating the economic impact of a university is to calculate the loss to the region that would result if the university were to shut down. As discussed in previous chapters, some of these losses are quantifiable; others are more easily pointed out than measured. If the University of West Florida were to close, one of the most obvious losses to the community would be the university's payroll. Salaries paid by the university in 2001 will exceed \$48 million. This diverse group of employees includes over 1,400 teachers, researchers, contractors, administrators, maintenance workers, and office personnel. These employees live, spend, and pay taxes in the local area. Meanwhile, the 8,517 students who attend the university spend an estimated \$50 million annually, and our survey indicates that 90% of these students would leave the area if the university were not here. The survey also indicates that each student receives an average of five visitors each year who spend an estimated \$32 million annually on food, lodging, and entertainment while in the area.

The university will spend \$12.7 million on new capital projects this year in order to more adequately support the academic program and to be more responsive to growing demands. As a consequence, this sum will go to contractors who, if not local themselves, hire many subcontractors in the local region. Each construction project requires building permits to be purchased, resulting in tax revenue to local governments. In addition to new construction, maintenance and renovation of the existing plant generates another \$653,000 in spending. Likewise, a large quantity of the university's \$31 million in annual purchases of goods, services, and equipment goes to regional businesses. Closure of the university would partially or completely eliminate the demand for goods or services of such firms. Some establishments, entirely dependent on the university, would see sales fall to zero. Firms not entirely dependent on the university would see their sales fall to some degree. For example, local hotel and lodging places would see a decline in bookings as out of town visitors to students and university employees disappear. Local convention and conference centers that host university-related conventions would also

see a decline in bookings. Local durable and non-durable retail outlets would see a drop in sales as faculty, staff, administrators, students, and their visitors remove spending from the area. Night clubs, restaurants, and other entertainment enterprises would see a decline in business as well. Finance, insurance, real estate, and professional and personal service businesses would all experience a decline in demand. All vendors who deal directly with UWF would lose a portion of sales and profitability, and via the multiplier process other businesses would feel an economic impact.

Closure of the University of West Florida would also affect the labor supply of many local business establishments. For example, local small businesses who rely on the university for technical and managerial support at little or no cost would have to look elsewhere. Local businesses would also see a drop in the availability of inexpensive student and intern labor. The supply of well educated personnel would be depleted in the area, and businesses would be forced to expend a larger portion of their resources in order to locate qualified employees.

Cultural and social effects would also be observed if the University were to close. For instance, the university radio station that is responsible for much of the news oriented educational and classical programming would be removed or relocated. All performances of drama, dance, music, theater, and lectures at the Center for Fine and Performing Arts and the events held at the Commons would be canceled, removing an inexpensive form of local cultural entertainment. All athletic events would be canceled and the UWF field house would close. Numerous athletic and cultural events attract people not only from other universities, but also visitors from around the state and the nation. These individuals spend money in the local area, hence generating sales, and further boosting incomes and job availability. For example, the University of West Florida Softball Team hosts a Spring Fling tournament each year that brings over 130 teams to the region. The fans and participants who come to the area for this event generate increased economic activity, income, and employment in the region. Because of their quality, scope, and influence, each of these programs provides a set of cultural, social, and educational experiences to the community that could not easily be duplicated.

Regional economic development efforts would also suffer since higher education availability is a key factor in corporate relocation decisions. A higher education level results in a higher skilled workforce that brings enhanced productivity and increased earnings power to the region. Due to the local presence of the university, this higher skilled work force is available to existing and potential businesses at a lower cost. Associated with higher income is increased spending on goods and services, more taxes paid, and an increased investment in the region. Closure of the university would also entail the loss of the applied and theoretical research that benefits existing and emerging industry, in addition to the consulting, tutoring, lectures, workshops, seminars, library services, and computer services that are available to the local business community.

In summary, removing the University of West Florida from the local economy would have a significantly negative effect on the Northwest Florida region. Some of these effects might be mitigated by reuse of the university infrastructure, but it is unlikely that alternate uses of the land and facilities would contribute to the region to the degree that the university does.

The following chapters describe the methodology that is used to estimate the economic impact of the university on the local region. The impact calculations are then presented in terms of total output, incomes, jobs, and taxes generated.

## IV. Methodology

Economic impact is defined as “the change in the level of economic activity attributable to a particular activity or event over a specific time period.” Several measures of University-related economic activity are estimated, including total output, income, tax revenues, and employment. The university’s operating and capital budget spending results in numerous sales by businesses that are providers of goods and services used by the university and its employees. Spending by visitors to the university also generate sales of products and services directly to the visitors (e.g. lodging provided by a hotel), and business-to-business sales by suppliers to the directly affected business (e.g., a laundry sells linen service to a hotel). The sum of direct sales plus business-to-business sales is reported as *total output*. The *income* figures that are reported are the sum of proprietor’s income and wages and salaries accruing to workers in these directly and indirectly affected businesses. *Employment* figures represent the number of jobs supported by sales of goods and services to consumers and the increased level of business-to-business transactions. The job estimates given include full-time, part-time and seasonal jobs. However, quantifying these effects can be difficult, and the calculated economic impact should be considered an estimate based on the best information available at the time.

These economic impact calculations are for the four-county region that includes Escambia, Santa Rosa, Okaloosa and Walton counties. The selection of a particular geographic region influences both the amount of spending by local businesses that is captured and the size of the multiplier effects. In these calculations, only spending that takes place within the defined region is included as stimulating the changes in economic activity, and all measures of impacts pertain to businesses and households located in this region.

Each of the measures of economic impact reflects the value generated by industry for one annual calendar year of production. In actuality, most of the local economic impact associated with local spending changes will have occurred within this one-year

time frame.

Estimates of the economic effect of University of West Florida on the Northwest Florida regional economy are measured for the following activities:

- 1) Spending of wages paid to university employees.
- 2) Spending associated with university operations and capital projects.
- 3) Spending by students for living and entertainment.
- 4) Spending by visitors of students and university employees who come into the area from outside of the Northwest Florida region.

In addition to the spending activities above, this study includes measurement of the addition that universities contribute to the skill base of the region. Through higher education, a university produces a more productive and skilled workforce that earns higher incomes than they would without such education. Higher incomes translate into higher spending levels in the regional economy and higher tax revenues to local governments. This analysis calculates the discounted present value of the difference between graduate and non-graduate lifetime incomes.

As discussed previously, UWF offers many services and activities that logic suggests benefit the local economy, but that due to their subjective nature are difficult to quantify. Table 2 below summarizes university services that are difficult to quantify in dollar terms and are, consequently, not completely accounted for in this study.

**Table 2 - University Services and Activities Not Quantified in Dollar Values**

University Services and Activities Not Measured in This Study	
Educational Services	
	Regular classes for nonstudents
	Extension courses
	Seminars
	Conferences
	Lectures
	Workshops
Public Events	
	Athletic events
	Cultural events
	Social events
Community Services	
	Community outreach services provided by faculty, staff, and students

<b>University Services and Activities Not Measured in This Study</b>	
	Tutoring
	Recreational facilities
Business and Professional Services	
	Research
	Consultation
	Publications
	Library services
	Computer services
	Patents and other Technology Transfer Activities

### **University Operating and Capital Expenditures**

Data used in this economic impact study were obtained from the fiscal year 2000-2001 university budget. In this particular year the university had an operating and capital budget of over \$98.9 million. Of the \$98.9 million, about \$48 million represented wages and salaries to university employees, and approximately \$37 million represented expenses for goods and services. These include spending on library resources, insurance, student financial aid and scholarships, debt service, management fees, maintenance and repairs, utilities, rentals expenses, marketing, fundraising, and other expenses. Additionally, the university budget indicates that over \$12.7 million will be spent on capital projects this year.

### **Student Expenditures**

In order to identify student spending injections into the region, other than for educational expenses, this analysis uses the results of a student body survey conducted in 1995. In this study, 1,400 surveys were distributed to students (1,000 via mail and 400 via classrooms). A total of 458 students responded to the survey (238 from the mail survey, establishing a 24 percent response rate and 220 from the classroom survey, creating a 48 percent response rate). Student spending patterns were adjusted to reflect changes in the consumer price index since 1995.

### **Visitor Expenditures**

The student surveys mentioned above indicated that each student entertained an average of five visitors per year from outside the study region, and that each visitor remaining in the area for four days. This analysis assumes that employees of UWF had the same number of visitors, and that all visitors exhibited the same spending patterns. The university has 8,517 students and 1,401 employees. Visitor expenditures per day for lodging, restaurants, entertainment, grocery items, shopping, and other spending categories were derived from tourist surveys collected by participating Visitor Information Centers in the Pensacola area over the period December 1, 1999 through November 30, 2000, and analyzed by the Haas Center for Business Research and Economic Development. Table 3 lists visitor spending per category and provides the regional purchase coefficients (explained below) that were applied to that spending in this study.

**Table 3 - Visitor Spending Patterns**

<b>Tourist Spending Patterns – Spending Per Day Per Party</b>			
<b>Spending Category</b>	<b>Daily Total</b>	<b>Annual Total</b>	<b>RPC</b>
Lodging	58.11	\$11,526,324	100%
Grocery	18.65	\$3,699,146	94.1%
Restaurant	20.81	\$4,128,032	90.0%
Entertainment	17.30	\$3,431,092	69.1%
Shopping	24.05	\$4,771,362	95.0%
Other	22.16	\$4,396,086	75.5%
<b>Total Spending Per Visitor Per Day</b>	<b>161.08</b>	<b>\$31,952,043</b>	

The analysis of the economic impact of university-related visitors on the region does not account for visitors who entered the region as spectators or participants of athletic events, or to attend conferences or participate in cultural and professional activities, because insufficient data were available to estimate their number.

Undoubtedly, many of these spectators and participants were also visiting students or

university employees, so their spending totals are captured in this analysis. To the extent that spectators and participants were not counted as visitors, this analysis underestimates the visitor spending impact.

### **Economic Multipliers**

Conceptually, the total economic impact derived from the existence of UWF can be separated into three different types of effects: direct, indirect, and induced. Spending by a visitor who purchases a meal in a restaurant is provided below to illustrate each of these effects. First is the direct effect of spending, which is the impact of new spending on first tier suppliers. Thus, ten dollars spent by a visitor at a local restaurant counts as a direct effect of ten dollars. This direct spending has the advantage that it can be counted relatively easily, but it does not capture the “multiplier effect” of the additional economic activity set in motion by the purchase of the meal.

To the direct effect must be added the indirect effect of spending. In order to produce the ten-dollar meal, the restaurant must purchase certain inputs from other businesses. To the extent that these inputs are local, these purchases represent additional local spending. For example, the restaurant may purchase two dollars worth of food inputs from the local produce market for every ten-dollar meal sold. The produce market may have paid a local farmer one dollar for the goods that are then sold to the restaurant, and the farmer may have paid 10 cents for local inputs into the farm. The indirect effect measures the cumulative local purchases from other businesses that are generated from the ten dollars spent on the meal. Because much of this spending goes either immediately or eventually to businesses outside of Escambia, this indirect effect tends to be smaller than the direct effect. A reasonable estimate of the indirect effect of a ten-dollar meal might be five dollars.

To the direct and indirect effects must be added the induced effect, which measures the additional spending that occurs across the economy because of the income paid by all of the businesses involved, directly or indirectly, in producing the meal. There is a flow of wages received by the waiters, cooks, produce store clerks, and others

who play a part in putting that meal in front of the visitor. These people receive most of those wages as take-home pay, and they spend most of that take-home pay and save some. To the extent that their spending generates jobs in the local economy, there is additional economic impact attributable to the meal. However, much of that pay may go to a mortgage or car payment that leaves the local economy. In fact, most of the grocery store spending will leave the local economy to pay for food produced elsewhere in the country. But the part that pays the local banker administering the car loan, or the clerk at the local store, or other local employees, represents a local economic impact of that ten-dollar meal. A reasonable value for the induced effect might be three dollars.

Thus, the total local economic impact of the ten dollar meal would be eighteen dollars, representing the initial purchase (the direct effect), plus the local purchases made from other businesses in producing the meal (the indirect effect), plus the local purchases resulting from the spending by households who received wage income while producing the meal (the induced effect). With every dollar spent in the community, there will be a magnification effect that increases the level of economic activity, earnings, employment, and taxes in the region. Here, “the multiplier” is said to be 1.8, meaning that every dollar spent on that category (restaurant meals) has a total impact of \$1.80 on the local economy, once the direct, indirect and induced effects are accounted for.

In order to say that the multiplier is 1.8 (versus some other number like 1.2 or 3.7), the U.S. Department of Commerce, Bureau of Economic Analysis, uses actual historical data, specific to each county in the country, to describe how goods and services are produced in each county. These tables show the amount of inputs from other industries used to produce a dollar’s worth of output in a particular industry. A number of commercial firms have elaborated on these basic input-output tables and used them to produce software that models these economic relationships. These are called input-output models. The Haas Center owns several of these models and uses IMPLAN, which is the most widely used model, in most economic impact studies.

There are several key concepts that must be used to get a correct estimate of the total economic impact arising from university spending. One of these is the Regional

Purchase Coefficient (RPC), which represents the proportion of local demand purchased from local producers. For example, an RPC of 0.25 for a given commodity means that for each \$1 of local demand, 25% will be purchased from local producers. RPC's are based on the characteristics of the region and describe the actual trade flows for the region mathematically. The greater the RPC, the greater the level of local economic activity that is occurring, and the larger the economic multiplier will be. The RPC's used in this study indicate the percentage of spending that occurs within the four county study area. Spending that occurs outside the study area is not included in the reported economic impact.

Another key concept of impact analysis is the price margin that separates wholesale from retail prices. Since this analysis involves retail prices in some spending categories and wholesale prices in others, the total spending (final demand) values needed to be subdivided into either retail or wholesale prices. Wholesale prices are those paid in business-to-business transactions, while retail prices are those paid at the consumer level. Margins represent the difference between wholesale (producer) and retail (purchaser) prices. Margining assigns direct expenditures to the correct industry sector multipliers by splitting a purchaser price into the appropriate producer values. In this study, the dollar value of impact resulting from purchase by retail consumers is split appropriately in order to capture the portion going to the retailer, wholesaler, transportation providers, and manufacturer.

## V. Economic Impact Results

### **Total Economic Impact**

To the extent that the wages and expenditures measured in this analysis are spent locally on goods and services that can be purchased in the region, they impact the local economy. Findings of this study are that the University of West Florida injects about \$344 million in direct spending into the local economy. When the total impact of the university is considered (taking the “multiplier effect” into account), approximately \$524 million in total spending is generated in the four county Northwest Florida region. About 8,828 jobs are created in the regional economy along with wages of about \$216 million. This total economic impact is also associated with about \$32.7 in state and local tax revenue. University related spending impacts are seen primarily in the retail trade, hotel and lodging, real estate, health services, construction, utilities, wholesale trade, recreation services, and business services industry sectors. Other industry sectors that see a large economic impact due to university-related spending include banking, communications, professional services, transportation services, and automotive services. The economic impact associated with the most heavily effected industries in the local economy is listed below in Table 4. Figure 2 shows the distribution of economic impact between the major affected industries.

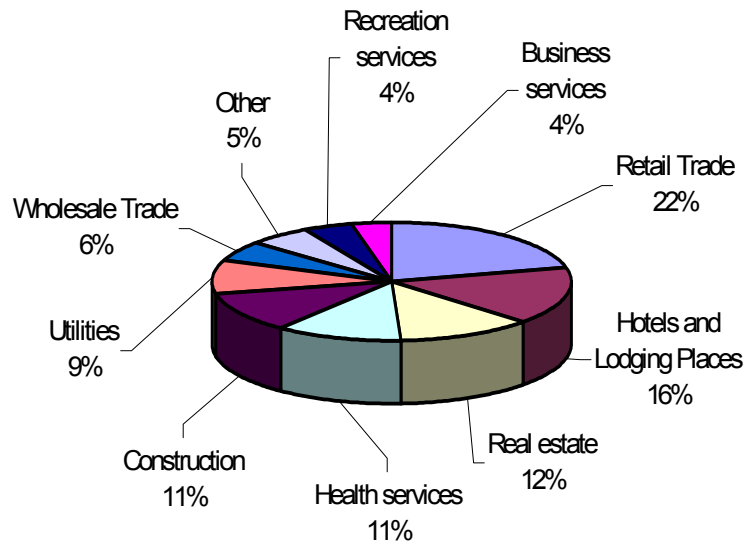
**Table 4 - Economic Impact of UWF on the Northwest Florida Economy**

<b>Economic Impact Of UWF On The Northwest Florida Economy – Industry By Industry Detail</b>			
<b>Industry</b>	<b>Incomes Generated</b>	<b>Jobs Generated</b>	<b>Total Output</b>
Hotels And Lodging Places	\$13,155,356	652.3	\$32,092,368
Doctors And Dentists	\$17,782,670	329.8	\$29,420,872
Eating & Drinking	\$10,307,622	770.9	\$26,951,894
Real Estate	\$3,078,605	147.8	\$24,916,290
Hospitals	\$12,798,590	388.3	\$21,612,436
Banking	\$4,964,943	153.8	\$19,961,032
Electric Services	\$3,532,403	48.0	\$18,600,524
Wholesale Trade	\$7,024,123	214.3	\$18,259,450
Miscellaneous Retail	\$7,775,257	495.0	\$15,080,948
Automotive Dealers & Service Stations	\$7,275,094	246.5	\$13,504,466
New Industrial And Commercial Buildings	\$3,524,553	114.7	\$12,755,103

<b>Economic Impact Of UWF On The Northwest Florida Economy – Industry By Industry Detail</b>			
<b>Industry</b>	<b>Incomes Generated</b>	<b>Jobs Generated</b>	<b>Total Output</b>
Insurance Carriers	\$4,914,323	58.4	\$12,657,147
Food Stores	\$7,693,276	465.6	\$12,633,150
Communications- Except Radio And TV	\$2,562,747	56.9	\$10,763,600
General Merchandise Stores	\$4,698,056	297.7	\$9,836,590
Amusement And Recreation Services- N.E.C.	\$3,718,097	282.7	\$9,223,032
Legal Services	\$5,694,933	77.6	\$7,796,564
Other Medical And Health Services	\$3,414,385	149.4	\$7,425,822
State/Local Govt Noneducation	\$0	0.0	\$7,122,154
Maintenance And Repair Other Facilities	\$3,576,812	117.8	\$6,327,463
Other State And Local Govt Enterprises	\$1,363,624	36.5	\$6,011,971
Motor Freight Transport And Warehousing	\$1,399,171	56.4	\$5,130,984
Apparel & Accessory Stores	\$2,059,061	139.9	\$4,961,333
Automobile Repair And Services	\$1,616,545	67.3	\$4,923,383
Furniture & Home Furnishings Stores	\$2,358,668	110.2	\$4,437,797
Management And Consulting Services	\$1,878,087	63.5	\$4,026,302
Building Materials & Gardening	\$2,127,142	95.0	\$3,840,376
Maintenance And Repair- Residential	\$1,356,119	51.0	\$3,664,932
Other Federal Government Enterprises	\$672,723	32.8	\$3,524,166
Computer And Data Processing Services	\$1,930,405	41.1	\$3,390,999
Social Services- N.E.C.	\$1,196,205	79.1	\$3,185,678
Credit Agencies	\$1,878,313	77.5	\$3,074,271
Personnel Supply Services	\$2,666,789	232.0	\$3,061,742
Apparel Made From Purchased Materials	\$597,434	35.2	\$2,949,039
Accounting- Auditing And Bookkeeping	\$2,412,615	62.9	\$2,856,061
Miscellaneous Personal Services	\$492,324	45.2	\$2,667,315
Other Business Services	\$846,128	50.3	\$2,666,155
Poultry Processing	\$440,144	19.5	\$2,636,631
Security And Commodity Brokers	\$1,808,554	22.1	\$2,536,444
Religious Organizations	\$266,645	20.0	\$2,488,401
Air Transportation	\$1,022,141	24.3	\$2,456,590
U.S. Postal Service	\$1,799,552	31.6	\$2,314,364
Child Day Care Services	\$717,099	66.5	\$2,168,243
Engineering- Architectural Services	\$910,975	24.6	\$2,144,107
Transportation Services	\$943,144	59.7	\$2,134,591
Residential Care	\$1,406,732	72.2	\$2,070,905
Insurance Agents And Brokers	\$1,353,554	55.1	\$2,053,368
<b>Total</b>	<b>\$216,150,604</b>	<b>8,828.9</b>	<b>\$524,466,116</b>

## Aggregated Composition of UWF Economic Impact on the NW Florida Economy

Figure 2 - Economic Impact Total Output Generated



## Tax Revenue

Even though UWF holds a tax exempt status, the spending generated by the university in the regional economy creates economic activity in economic sectors that comprise the area tax base. This analysis estimates that the university generates approximately \$32.7 million in state and local taxes, and an additional \$55 million in federal taxes annually. Table 5 below deliniates the tax impact of the University of West Florida.

**Table 5 - Tax Impact of The University of West Florida**

Level of Government	Tax	Employee Compensation	Proprietor Income	Household Expenditures	Corporations	Indirect Business Taxes	Total
Federal Taxes	Corporate Profits Tax				8,090,261		8,090,261
	Indirect Bus Tax: Custom Duty					674,537	674,537
	Indirect Bus Tax: Excise Taxes					2,116,532	2,116,532
	Indirect Bus Tax: Fed NonTaxes					529,993	529,993
	Personal Tax: Estate and Gift Tax						0
	Personal Tax: Income Tax			23,841,240			23,841,240
	Personal Tax: NonTaxes (Fines- Fees			226,901			226,901
	Social Ins Tax- Employee Contribution	9,248,694	993,469				10,242,162
	Social Ins Tax- Employer Contribution	9,701,677					9,701,677
	Total Federal Government	18,950,371	993,469	24,068,142	8,090,261	3,321,063	55,423,305
State and Local Taxes	Corporate Profits Tax				898,033		898,033
	Dividends				14,011		14,011
	Indirect Bus Tax: Motor Vehicle Lic					252,879	252,879
	Indirect Bus Tax: Other Taxes					1,614,966	1,614,966
	Indirect Bus Tax: Property Tax					10,517,440	10,517,440
	Indirect Bus Tax: S/L NonTaxes					1,850,654	1,850,654
	Indirect Bus Tax: Sales Tax					16,156,656	16,156,656
	Indirect Bus Tax: Severance Tax					46,566	46,566
	Personal Tax: Estate and Gift Tax						0
	Personal Tax: Income Tax						0
	Personal Tax: Motor Vehicle License			334,064			334,064
	Personal Tax: NonTaxes (Fines- Fees			552,821			552,821
	Personal Tax: Other Tax (Fish/Hunt)			18,895			18,895
	Personal Tax: Property Taxes			115,941			115,941
	Social Ins Tax- Employee Contribution	64,310					64,310
	Social Ins Tax- Employer Contribution	292,969					292,969
	Total State/Local Government	357,280	0	1,021,720	912,044	30,439,160	32,730,205
	Total	19,389,198	993,469	25,089,862	9,002,305	33,760,223	88,235,057

### **University Operating and Capital Budget**

The university's annual operating and capital budget totals approximately \$98 million. Approximately \$48.8 million of the operating budget is spent on wages and salaries, and approximately \$31.4 million on expenses for goods and services. Approximately \$12.7 million is budgeted for capital expenditures. To the extent that wages are spent locally, and goods and services used by the university can be purchased in the region, they impact the local economy. The university operating and capital budget economic impact on the region is just over \$120 million of activity which includes a \$63 million contribution to regional incomes (see Table 6).

**Table 6 - University Operating and Capital Budget Impact**

<b>University Operating and Capital Budget Impact</b>				
<b>Operating and Capital Budget (Including Wages, Expenses, and Construction)</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Output	\$77,257,203	\$11,459,926	\$31,288,942	\$120,006,071
Income	\$47,169,307	\$4,735,690	\$12,016,973	\$63,921,970
Employment	1,569.5	176.0	496.3	2,241.8

### **Student Spending**

In calculating the annual total student spending, the following data were considered:

- 1) The currently reported enrollment at UWF is 8,517 students.
- 2) From the survey responses, 90 percent of the students said that they would leave the region if UWF closed. Therefore, 10 percent of the student body was removed from the study, as their economic impact would not leave the area if the university were to close.
- 3) Using headcount figures for Fall 1999 and Summer 2000, it is estimated that 65% of the student population lives in the area year around, while approximately 35% leave for the summer.

Given these assumptions and the student non-tuition expenditure data derived from the student survey, the following student expenditure estimates were calculated (see Table 7):

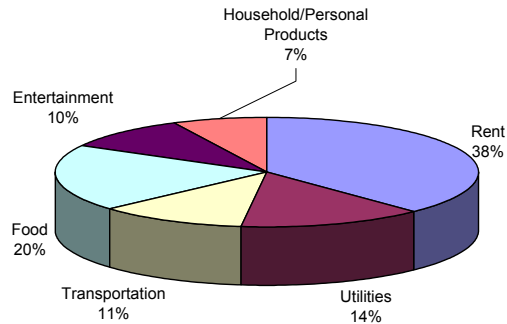
**Table 7 - Student Expenditures**

Category	Average Monthly Spending	Monthly Total	Annual Total
Rent	\$270	\$2,069,377	\$19,038,268
Utilities	\$101	\$774,100	\$7,121,722
Transportation	\$82	\$628,477	\$5,781,993
Food	\$142	\$1,088,339	\$10,012,719
Entertainment	\$69	\$528,841	\$4,865,335
Household/Personal Products	\$52	\$398,547	\$3,666,629
Totals	\$716	\$5,487,681	\$50,486,666

To the extent that the student expenditures are local, and goods and services can be purchased in the region, they impact the local economy. The local economic impact associated with student non-tuition spending totals approximately \$48 million, which includes over \$18 million in incomes generated and approximately 902 jobs supported. The economic impact associated with student non-tuition spending is provided in Table 8, and Figure 3 shows the composition of student spending.

**Table 8 - Economic Impact of Student Expenditures**

Student Spending	Direct	Indirect	Induced	Total
Output	\$32,155,937	\$6,618,049	\$10,006,437	\$48,780,423
Income	\$12,264,729	\$2,743,556	\$3,840,153	\$18,848,438
Employment	634.6	109.4	158.7	902.7

**Figure 3 - Composition of Student Expenditures**

### Visitors

Visitation to students, faculty, staff, and maintenance personnel employed at UWF also provided a measurable economic impact. To the extent that visitors purchase goods and services that are available locally, the expenditures impact the local economy. The expenditures of visitors to UWF students and employees has a direct impact on the local economy estimated at over \$21 million. The multiplied local economic impact of visitor spending is approximately \$34 million, which includes over 728 jobs and \$13 million in wages generated in the regional economy. A summary of the economic impact associated with the spending of visitors is provided in Table 9.

**Table 9 - Economic Impact of Visitor Expenditures**

Visitor Spending	Direct	Indirect	Induced	Total
Output	\$21,883,307	\$5,265,894	\$7,204,338	\$34,353,540
Income	\$8,933,144	\$2,130,699	\$2,765,186	\$13,829,029
Employment	526.9	87.0	114.3	728.1

### **Present Value of UWF Graduate Incomes**

One of the most important contributions that UWF provides to the Northwest Florida economy is the higher level of skill and productivity that a university graduate offers over a non-university graduate. The value that their education has to the local economy is estimated by calculating the difference in lifetime earnings of UWF graduates versus high school graduates. The following data were used to estimate this value:

- 1) The university alumni office estimates that 47.22% of UWF graduates find employment in the four county Northwest Florida region.
- 2) Total number of UWF graduates was provided by the University of West Florida Pocket Fact Book 2000-01, March 2001.
- 3) Earnings by degree received were taken from the Florida Education and Training Placement Information Program (FETPIP). (1998). 1997-98 SUS Graduate Employment Survey.
- 4) Earnings of high school graduates were provided by the Florida Department of Education.
- 5) A discount rate of 5.75% was employed.

This analysis estimates that the present value of the difference between UWF graduate incomes over high school graduates is approximately \$348 million. This is the amount of money that local businesses are willing to pay for the workforce skills that this year's (2000-01) UWF graduates offer. This value is used as an estimate of the annual local economic impact of the higher productivity and workforce skill that the university provides to the region. Tables 10 and 11, shown below, provide the calculations.

**Table 10 - Combined Annual Earnings of UWF Graduates Employed In Northwest Florida**

<b>Total Annual Earnings of UWF 2000 Graduates Employed In Northwest Florida</b>					
Degree	Total UWF Graduates in 2000	% Graduates Estimated Employed In NW Florida	Estimated NW Florida Graduate Count	Estimated Average Annual Earnings	Total Annual Earnings
Bachelors	1286	47.22%	607	\$27,200	\$16,518,291
Masters	416	47.22%	196	\$42,183	\$8,286,760
PhD	21	47.22%	10	\$84,266	\$835,665
Specialists	41	47.22%	19	\$48,718	\$943,260

Total			833	\$26,583,976
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**Table 11 - Net Present Value of Wage Differential**

Net Present Value Calculations				
Degree	Four County Count	Unemployment Adjustment	Individual NPV	Total NPV
Bachelor	607	581.79	\$317,205	\$184,546,600
Master and Specialist	215	206.75	\$708,733	\$146,528,864
PhD	10	9.50	\$1,817,837	\$17,270,250
Total	833	798		\$348,345,714

To the extent that these wages are spent locally on goods and services that can be purchased in the region, they impact the local economy. These wages result in a direct local impact of approximately \$213 million. When the multiplier effect is considered, the total local economic impact associated with the higher wages that are paid to UWF graduates totals approximately \$321 million in total output, which is the sum of direct sales plus the indirect and induced retail and business-to-business spending. This includes over \$119 million in incomes to proprietor's and salaries accruing to workers in the directly and indirectly affected businesses. It also includes approximately 4,956 jobs supported by the increased level of consumer and business-to-business transactions.

**Table 12 - Economic Impact of UWF Graduate Lifetime Wage Differential**

NPV of UWF Graduate Wage Differential	Direct	Indirect	Induced	Total
Output	\$213,127,496	\$45,955,282	\$62,243,303	\$321,326,082
Income	\$77,023,548	\$18,637,954	\$23,889,665	\$119,551,168
Employment	3,264.9	704.1	987.1	4,956.2

## VI. Estimating Public Costs

The presence of the university not only generates economic benefits, it also increases the demand for public services. The cost of these public services are borne by municipalities that derive much of their income from real estate taxes. The tax exempt status of universities may cause some to ask: “Are the costs of unreimbursed services and the loss of potential tax revenues offset by other credits?” A comparison may be made with the water that comprises our southern border. The Gulf of Mexico does not pay property taxes, yet no one would argue that it is not of tremendous economic benefit to the regional economy. It is in this context that UWF should be considered. Nevertheless, this study estimates the fiscal impact of the university.

While the demand for new public services generated by UWF cannot be determined exactly, a reasonable estimate is that the daytime population of the university will use public services at roughly the same rate as the county’s other resident populations. This analysis assumes that, over the long run, average operating costs per county resident are the best estimates of operating costs occasioned by UWF’s daytime population, and that average per capita service levels are the most accurate indicator of service levels required by university students and staff. This approach is called the “Per Capita Multiplier Method,” which is a widely used method in calculating fiscal impact (Burchell and Listokin, 1978). In addition, this is the method recommended by the American Council on Education. Since UWF is more labor-intensive than most industries, this method results in a higher calculation of public costs than that which would be calculated for the area’s more capital-intensive industries.

The per capita multiplier approach involves determining what the county spends on public services and calculating per capita expenditures. Escambia County’s public services expenditures were divided by the total county population to determine average per capita cost. These per capita costs of serving the area residents were applied to the population of UWF. Costs of public services provided were obtained from the Annual Budget for Fiscal Year 1999-2000 for Escambia County, Florida. The 1999 population

estimate of 301,613 residents of Escambia County was obtained from the Bureau of Economic and Business Research at the University of Florida. Using these data, Escambia County public services per capita expenditures were calculated. Table 13 below provides the Escambia County Report for Expenditures for Fiscal Year 2001, indicating per capita expenditures by expenditure category for Escambia County residents, and estimates of per capita costs of public services provided to the University of West Florida.

The cost of the public services that are provided to the University of West Florida are estimated to be approximately \$10.3 million per year.

**Table 13 - Estimated Public Service Cost of the University**

<b>Expenditures</b>	<b>Total County Budget</b>	<b>Per Capita Expenditure</b>	<b>Estimated Expenditures for UWF</b>
<b>General Government</b>	<b>\$104,768,010</b>	<b>\$327</b>	<b>\$3,243,186</b>
<b>Public Safety</b>	<b>\$36,112,461</b>	<b>\$113</b>	<b>\$1,120,734</b>
<b>Physical Environment</b>	<b>\$12,246,239</b>	<b>\$38</b>	<b>\$376,884</b>
<b>Transportation</b>	<b>\$87,432,061</b>	<b>\$273</b>	<b>\$2,707,614</b>
<b>Economic Environment</b>	<b>\$5,811,207</b>	<b>\$18</b>	<b>\$178,524</b>
<b>Human Services</b>	<b>\$3,571,997</b>	<b>\$11</b>	<b>\$109,098</b>
<b>Culture and Recreation</b>	<b>\$12,672,315</b>	<b>\$40</b>	<b>\$396,720</b>
<b>Other</b>	<b>\$66,786,229</b>	<b>\$208</b>	<b>\$2,062,944</b>
<b>Criminal Court Costs</b>	<b>\$5,165,704</b>	<b>\$16</b>	<b>\$158,688</b>
<b>Totals</b>	<b>\$334,566,223</b>	<b>\$1,044</b>	<b>\$10,354,392</b>

Public costs associated with the university are primarily for general government, transportation, and public safety expenses. “General Government” includes the costs of legislative, financial, administrative, and legal services, comprehensive planning and other general governmental services. “Transportation” includes the costs of building road and street facilities and expenditures for developing and improving the safe and adequate flow of vehicles, pedestrians, and travelers. “Public Safety” includes the costs of animal control, fire control, emergency and disaster relief, and other public safety services.

In addition to public services provided to the university, some municipal tax revenue is lost due to the tax exempt status of the university. Table 14 below estimates the tax revenue that would be collected if the university paid taxes on the full estimated \$207 million property value of UWF. Property taxes payable to Escambia County, the School District, and other taxing authorities would total an estimated \$3.9 million. When added to the cost of public services calculated above, the total public costs associated with the university is estimated at \$14.3 million. This may be compared to the approximately \$32.7 million in state and local tax revenues, and the additional \$55 million in federal tax revenue that is generated annually by UWF.

**Table 14 - Estimated Property Tax Revenue**

<b>Taxing Authority</b>	<b>Millage</b>	<b>Estimated Property Value</b>	<b>Lost Tax Revenue</b>
Escambia County	0.008756	\$207,000,000	\$1,812,492
School District	0.009249	\$207,000,000	\$1,914,543
Water	0.0005	\$207,000,000	\$103,500
Municipal Services	0.000747	\$207,000,000	\$154,629
Total			\$3,985,164

## VII. Conclusion

The University of West Florida plays an important role in the economic environment of the Northwest Florida region, not only through economic expenditures but also through intangible, non-pecuniary contributions. In addition to making an impact on the local economy, the university provides a variety of benefits to the community, including those that are educational, economic, and social in nature. By supplying an atmosphere in which students and the community at large can gain knowledge and enrichment, UWF provides educational benefits to the community. The university provides social benefits to the community through its extra curricular activities and cultural events. Economic benefits are obtained through direct expenditures by UWF, and the higher levels of worker productivity and income of the graduates who continue to reside in the area.

This study underestimates the impact of UWF, as it does not measure the impact of many educational, business, or community services that are available to the region due to the local presence of the university. The educational services not measured include the seminars, conferences, lectures, and workshops that would not be available if not for the university's proximity. Business services, such as consultations, applied and theoretical research, library and computer services are also important but unmeasured in this analysis. Also unmeasured are the benefits derived from community outreach programs, tutoring, and university recreational facilities. The public benefit associated with the athletic, cultural, and social events provided by UWF were not calculated either.

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