

AD-A196 603

DTIC FILE COPY

2

UPDATED FISCAL IMPACT ANALYSIS,
NAVAL SUBMARINE BASE, KINGS BAY,
GEORGIA

Report FP605R1

DTIC
ELECTE
JUN 22 1988
S D

December 1986

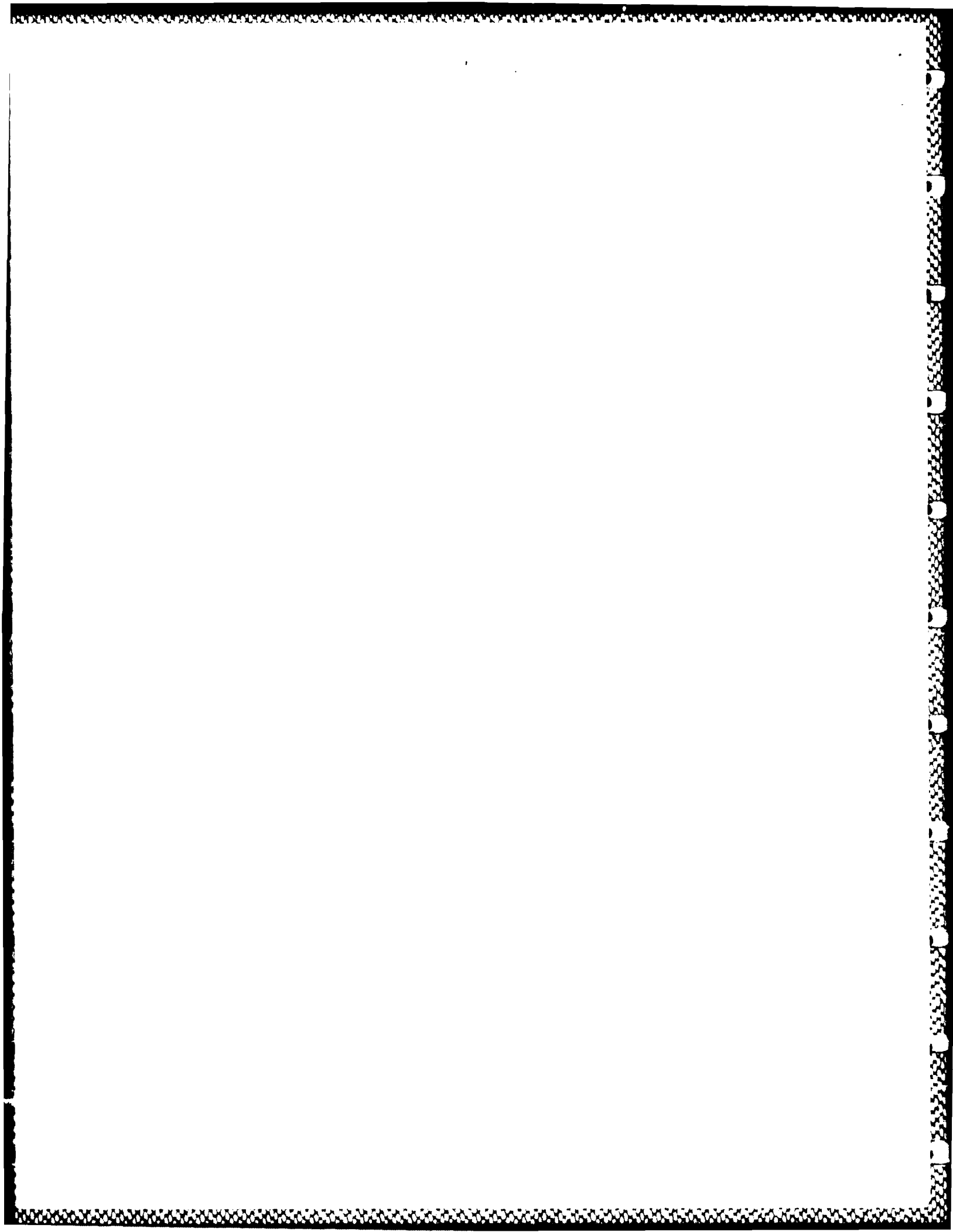
William B. Moore
Robert A. Hutchinson
David D. Metcalf

DISTRIBUTION STATEMENT A

Approved for public release
Distribution Unlimited

Prepared pursuant to Department of Defense Contract MDA903-85-C-0139.
The views expressed here are those of the Logistics Management Institute at
the time of issue but not necessarily those of the Department of Defense.
Permission to quote or reproduce any part must - except for Government
purposes - be obtained from the Logistics Management Institute.

LOGISTICS MANAGEMENT INSTITUTE
6400 Goldsboro Road
Bethesda, Maryland 20817-5886



UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

ADA 96603

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION / AVAILABILITY OF REPORT "A" Approved for public release; distribution unlimited.		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S) LMI-FP605			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION Logistics Management Institute		6b. OFFICE SYMBOL (if applicable)		7a. NAME OF MONITORING ORGANIZATION	
6c. ADDRESS (City, State, and ZIP Code) 6400 Goldsboro Road Bethesda, Maryland 20817-5886				7b. ADDRESS (City, State, and ZIP Code)	
8a. NAME OF FUNDING / SPONSORING ORGANIZATION Office of Economic Adjustment		8b. OFFICE SYMBOL (if applicable) OEA		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER MDA903-85-C-0139	
8c. ADDRESS (City, State, and ZIP Code) OASD(FM&P) Room 3D968, The Pentagon Washington, D.C.				10. SOURCE OF FUNDING NUMBERS	
				PROGRAM ELEMENT NO.	PROJECT NO.
11. TITLE (Include Security Classification) Updated Fiscal Impact Analysis: Naval Submarine Base, Kings Bay, Georgia (Unclassified)					
12. PERSONAL AUTHOR(S) William B. Moore, David D. Metcalf, Robert A. Hutchinson					
13a. TYPE OF REPORT Final Report		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Year, Month, Day) 1 December 1986	
15. PAGE COUNT					
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) Fiscal analysis, Naval Submarine Base, Kings Bay, Georgia, public services, capital facilities, Naval base expansion.		
FIELD	GROUP	SUB-GROUP			
19. ABSTRACT (Continue on reverse if necessary and identify by block number) The report provides an updated analysis of the expansion of the Naval submarine base at Kings Bay, Georgia that began in 1978. The expansion will bring more than 28,000 people to Southern Georgia and Northern Florida by 1998. More than 80 percent of that increase is expected to occur in Camden County, Georgia. This report discusses these impacts on local jurisdictions, school districts, and the State of Georgia. The purpose of the report is to provide updated information to local officials for use in managing the growth of public services and capital facilities. The updated FIA consists of a summary volume that presents information on all aspects of the effects of the Naval base expansion; a separate volume contains technical appendices that give greater detail on the specifics of the expansion impacts, including a detailed description of methodology.					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS				21. ABSTRACT SECURITY CLASSIFICATION	
22a. NAME OF RESPONSIBLE INDIVIDUAL				22b. TELEPHONE (Include Area Code)	
				22c. OFFICE SYMBOL	

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

ACKNOWLEDGMENT

The preparation of the Updated Fiscal Impact Analysis, Naval Submarine Base, Kings Bay, Georgia, benefited from the close cooperation of the Department of Defense (DoD), local officials, and the State of Georgia. Among those individuals and groups who contributed significantly to the analysis are: Lieutenant Commander Thomas J. Bukoski, Lieutenant Darrell Y. Van Hutten, and Mr. Michael Clark of the Officer in Charge of Construction (OICC) Trident; Mr. C. Jones Hooks and the staff of the Kings Bay Impact Coordinating Committee (KBICC); Mr. Mark Sanders of the Office of the Governor of Georgia; Ms. Roberta Friesinger-Carney of the Georgia Department of Community Affairs; Mr. Michael W. Gleaton of the Coastal Area Planning and Development Commission; Mr. John S. Peterson of Camden County; Mayor Keith Dickson of Kingsland; Mayor Ward Hernandez of St. Marys; Mr. Joseph D. Maltese and Mr. Donald Biddel of St. Marys; Mr. George L. Hannaford of Woodbine; Mr. Gene Brewer and Mr. John Bell of the Camden County School District; and numerous other budget and planning officials.

Mr. Richard R. Kinnier, Ms. Helene M. O'Connor, and Mr. Joseph V. Cartwright of the Office of Economic Adjustment provided supervision and technical assistance for the Updated Fiscal Impact Analysis, Naval Submarine Base, Kings Bay, Georgia.



Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

Executive Summary

UPDATED FISCAL IMPACT ANALYSIS, NAVAL SUBMARINE BASE, KINGS BAY, GEORGIA

The expansion of the naval submarine base at Kings Bay, Georgia, that began in 1978, will bring more than 28,000 people into southern Georgia and northern Florida by 1998. More than 80 percent of that increase is expected to occur in Camden County, Georgia; the remaining increase will be distributed among other counties in Georgia and Florida. This report discusses the fiscal impacts in Camden County.

The population of Camden County will triple from the pre-expansion level of 12,000. Employment and salaries will also show substantial gains, as will the number of students in the Camden County School District. The large population influx will have a significant political, economic, and financial impact on the local area. That impact was initially described in the *Fiscal Impact Analysis (FIA), Naval Submarine Base, Kings Bay, Georgia*, published in May 1981. The purpose of that document was to provide information for local officials to use in managing the growth of public services and capital facilities. This Updated FIA includes additional information gathered over the past 5 years, as well as new program data.

The Updated FIA shows that as a result of project-related growth:

- Revenue and expenditures by Camden County Governments and the State of Georgia will triple from current levels — a sevenfold increase from 1978 levels.
- The Camden County School District will soon face a \$1.6 million annual operating budget shortfall from the combined effect of new requirements imposed on all Georgia schools and the naval base expansion. That shortfall will require curtailing expenditures or increasing revenues. In addition, a \$26.9 million school construction capital requirement is forecast between 1988 and 1998.
- St. Marys and Kingsland in Camden County both face operating deficits from 1987 through 1998. Both cities may have to reassess the levels of services they feel they can provide for their citizens and consider whether they will either reduce those levels or find some other source of revenue.

- Kingsland, in Camden County, will require some state or Federal assistance if the currently envisioned water and sewer plant is to be completed.
- The State of Georgia will experience significant positive cash flows (\$5 million annually) for the life of the project. Its active role in growth-management planning is essential to mitigate any local negative fiscal effects of the expansion.

The current Navy expansion schedule of 7,579 new military positions will create 7,646 new civilian jobs between 1978 and 1998; nearly 14,000 of those jobs will be claimed Camden County residents. Annual personal income in the area is expected to increase to \$294 million (in 1998 dollars) in the 20-year period.

SUMMARY OF CAMDEN COUNTY POPULATION AND EMPLOYMENT GROWTH

	1978 - 1998 Kings Bay growth
Total population	22,811
Civilian jobs	7,646
Total salaries	\$294 million
Total students	4,949

The increase in salaries, a base construction program in excess of \$1 billion, and estimated local Navy purchases of \$130 million over the 20-year period will provide an enormous economic stimulus to the County. The expansion will also generate private-sector economic benefits: more jobs and increased income to pre-1978 residents and an increase in both existing business volume and new ventures. The new ventures will include commercial enterprises as well as residential housing developments.

Similarly, the Kings Bay expansion will generate public-sector benefits. Two major benefits will be new tax revenues and additional bonding capacity. Those benefits, however, will be accompanied by requirements for additional public services and new infrastructure in certain cases.

The results of this Updated FIA for Kings Bay have been formulated so they can be readily evaluated and monitored. The information they provide can be

further updated, expanded, and enhanced by the Navy and the Kings Bay Impact Coordinating Committee (KBICC) with technical assistance from OEA.

The expansion of the naval submarine base at Kings Bay will result in many changes in Camden County. Some of those changes will create short-term problems for local jurisdictions, while others will provide positive benefits. In both cases, it is essential that managers at all levels of Government and in the School District plan to manage growth. Only by such planning and through a coordination of efforts can the negative impacts be minimized and the benefits amplified. With a well-considered and executed growth-management plan, the region surrounding Kings Bay can look forward to a period of economic growth that should generate significant benefits.

CONTENTS

	<u>Page</u>
Acknowledgment	iii
Executive Summary	v
Chapter 1. The Kings Bay Expansion	1- 1
Chapter 2. Fiscal Impact Analysis for Growth-Management Planning	2- 1
Fiscal Impact Analysis Objectives	2- 1
The Use of an FIA	2- 2
The Role of Local Communities and the State	2- 3
The Office of Economic Adjustment's Role	2- 4
Chapter 3. The Need for an Updated FIA	3- 1
A History of Fiscal Impact Analyses at Kings Bay	3- 1
Feedback and Reevaluation	3- 1
Supporting Growth Management	3- 2
Chapter 4. Technical Approach	4- 1
The Project Baseline	4- 1
The FIA Model	4- 2
Jurisdiction Fiscal Impact Analyses	4- 5
Chapter 5. Growth in the County and Local Governments	5- 1
The Impact Area	5- 1
Growth in Camden County Government	5- 3
Growth in St. Marys	5- 5
Growth in Kingsland	5- 7
Growth in Woodbine	5- 8
Summary of Growth Impacts on Local Governments	5-10
Chapter 6. Growth in the Camden County School District	6- 1
Chapter 7. Growth in the State of Georgia	7- 1

CONTENTS (Continued)

	<u>Page</u>
Chapter 8. Summary and Conclusions	8- 1
Summary	8- 1
Conclusions	8- 4
Appendix A. Definitions of Jurisdiction Characteristics	A-1 – A- 4
Appendix B. Rating Scales for Key Jurisdiction Characteristics	B-1 – B- 2
Appendix C. Definitions of Terms Used in FIA Model Outputs for Jurisdictions	C-1 – C- 4
Appendix D. Local Government FIA Model Outputs	D-1 – D-42
Appendix E. School District FIA Model Outputs	E-1 – E- 8
Appendix F. Georgia State FIA Model Outputs	F-1 – F- 8

CHAPTER 1

THE KINGS BAY EXPANSION

In May, 1979, Kings Bay, Georgia, was selected as the preferred location for the Navy's East Coast Trident submarine base. The announcement came after several years of detailed studies on over 60 locations. When completed, the base at Kings Bay will support one of the Navy's most vital weapon systems, the Submarine Launched Ballistic Missile System, Trident, and the Ohio class submarines. Considered as the most survivable component of the U.S. Strategic Nuclear Forces, the Navy's ballistic missile submarine force provides an invaluable element to the overall strategic balance of the United States defense.

In late 1980, final approval was given for the Kings Bay construction to begin. The decision signified the end of the long planning process and the beginning of significant changes for the areas surrounding Kings Bay. The expansion of the base from Poseidon Refit Facility to East Coast Strategic Weapons Facility would require a total construction program in excess of \$1 billion, the creation of 2,300 construction jobs in the peak program years, and the influx of over 11,400 military and on-base civilian jobs.

The region surrounding Kings Bay is made up of a variety of communities ranging from rural farming areas to the metropolitan community of Jacksonville, Florida with 600,000 people. The region includes a seven-county area of northern Florida and southern Georgia as shown in Figure 1-1. Prior to the expansion, the Florida Counties of Duval and Nassau were experiencing significant growth. This trend is expected to continue regardless of the plans for Kings Bay. Conversely, the five Georgia Counties of Ware, Charlton, Glynn, Brantly, and Camden were experiencing little growth prior to the expansion with no significant changes anticipated.

As forecast in the Kings Bay Environmental Impact Statement (EIS), the major expansion-related impacts are expected to occur in Camden County. Patterns of residential location taken from the Navy's annual base housing surveys show 84 percent of incoming population moving to Camden County.

KINGS BAY IMPACT AREA

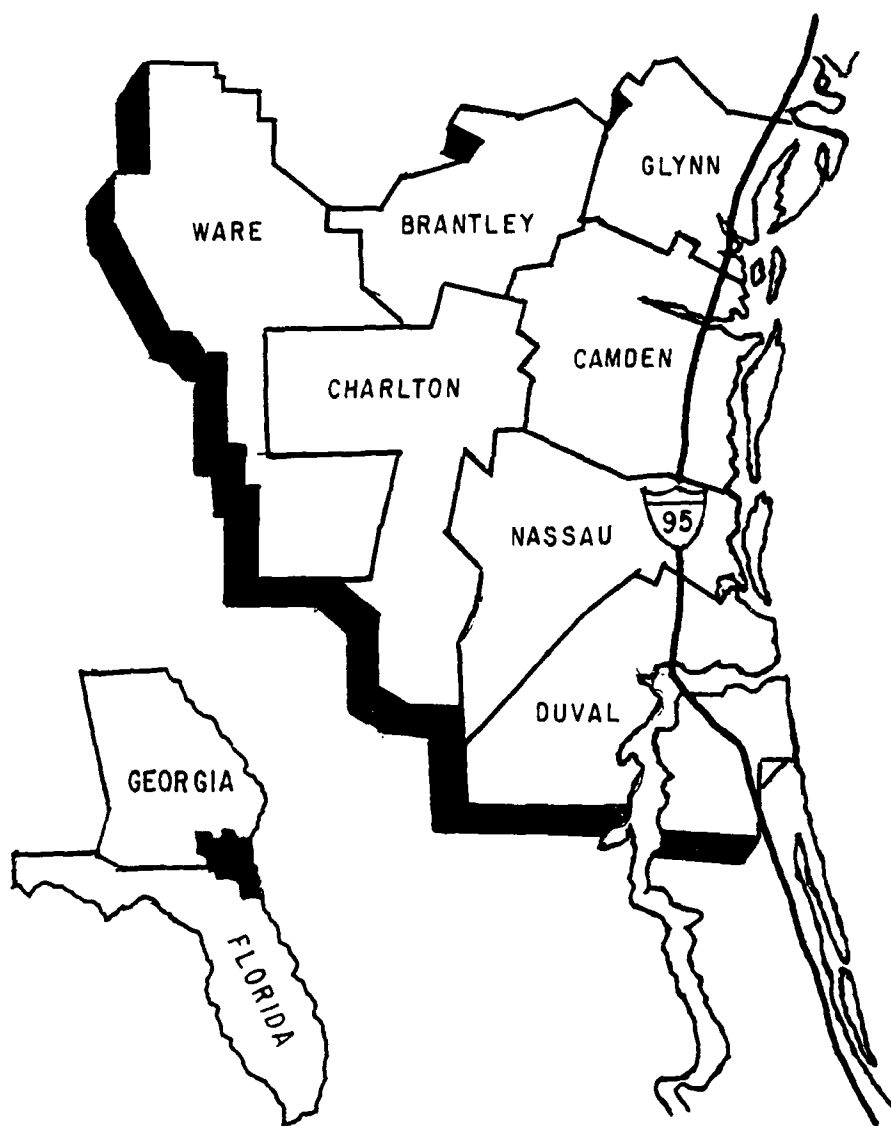


FIG. 1-1.

PRIMARY IMPACT AREA

Camden County, Coastal Georgia's southernmost county, was a largely rural area of about 12,000 residents in 1978. Prior to the Kings Bay expansion, Camden County was relatively stable demographically and economically. In the 10 years before the beginning of the expansion, the average annual population increase was less than 1.5 percent. Median per capita income levels were about \$4,900 in 1978. Major employers for the area were the Gilman Paper Company and the Union Carbide Chemical Plant. Estimates for 1980 showed 36 percent of the area's employment coming from these two sources. The relatively stable condition of Camden County is also reflected in the county and local government fiscal records. Local government revenues and expenditures showed very little real growth from 1970 to 1978. The pre-expansion condition in Camden County is in stark contrast to conditions in the County today.

Since the expansion, there are few aspects of life in Camden County that have not been affected by the increased activity associated with the expansion of the submarine base at Kings Bay. The county has already changed significantly from what it was in 1978, and many significant changes have yet to occur. This Updated Fiscal Impact Analysis (FIA) describes the methods used to analyze the changes that are anticipated. It also describes the population, fiscal, and economic impacts that are expected from the expansion.

CHAPTER 2

FISCAL IMPACT ANALYSIS FOR GROWTH-MANAGEMENT PLANNING

The expansion of a military facility can provide significant long-term benefits to the surrounding areas. Increased growth in business activities, jobs for the local population, and increased tax revenues are among the more tangible effects. Those benefits are usually accompanied, however, by requirements for additional services and infrastructure: new roads, new schools, and additional water and sewer capacity are some of those needs. Additionally, Government agencies may require new facilities and/or staff to meet the new demands. Identifying those requirements and developing a plan to deal with them is an essential part of managing growth.

To deal with the short-term demands of rapid expansion, local communities must know the magnitude and timing of the expected impacts on infrastructure and services. The time-phased analysis of the impacts associated with a rapid base expansion and their corresponding financial requirements is referred to as a fiscal impact analysis.

FISCAL IMPACT ANALYSIS OBJECTIVES

Fiscal impact analyses of base expansions are not new; they can be traced back to the early 1940's, when the Lanham Acts (Public Laws 76-849 and 77-137) were legislated to provide assistance to communities that were impacted by rapid military base expansion during World War II. In the years that followed, Congress frequently passed legislation dealing with the effects of rapid military base expansions. A good history and explanation of these actions is provided in a pamphlet, *DoD-Local-State Management of Defense Related Growth: An Overview*, published by the President's Economic Adjustment Committee (EAC).

Under current Federal Executive guidance (as stated in the Final Report on Community Impact Assistance submitted in accordance with Section 803 of the FY81 Military Construction Authorization), OEA performs an FIA for communities that will be impacted by rapid military base expansions. The objectives of these analyses are to identify the impacts of military base expansions and to assess the communities' capabilities for avoiding unfair and excessive fiscal burdens. Another

equally important objective of the FIA is to provide a vehicle that local communities can use to monitor and manage growth. Thus, an FIA is a critical part of the local communities' efforts in planning to manage growth. Figure 2-1 shows the overall growth-management process and how the FIA supports other activities of that process.

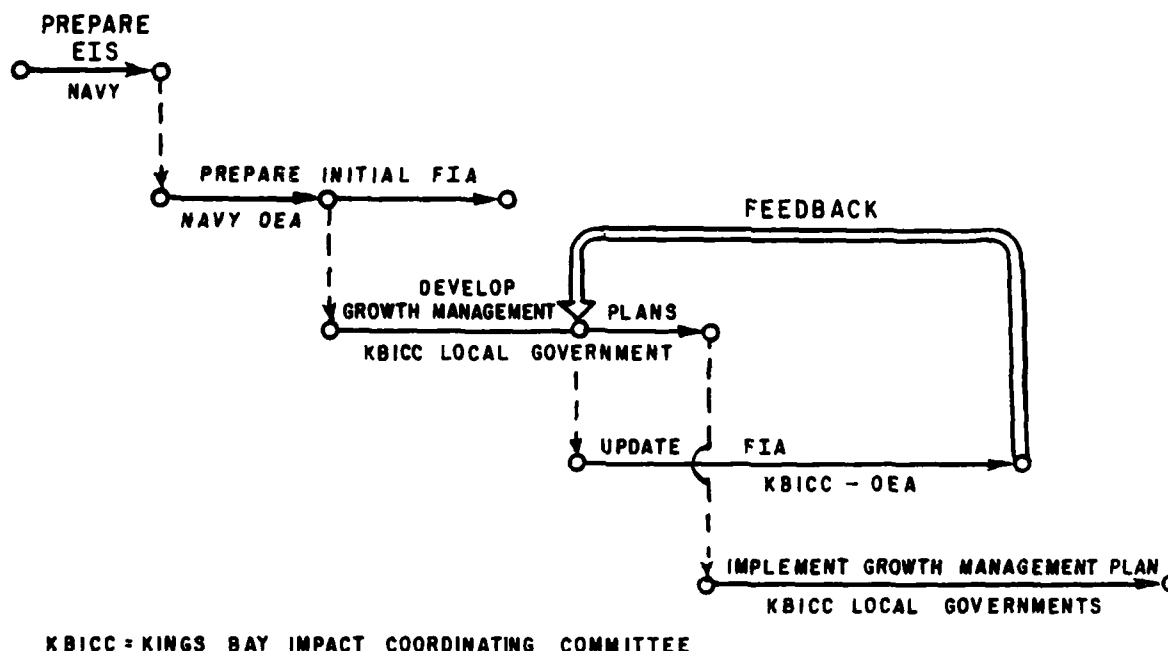


FIG. 2-1. GROWTH MANAGEMENT PROCESS

THE USE OF AN FIA

An FIA assists local and state governments since it provides much of the information that is needed for growth-management planning. It forecasts the size and expected distribution of the population increase and provides demographic information that can be used as the basis for estimating the effects of changes in population.

The economic impacts of a rapid expansion of a military base are extremely important to local and state officials. The generation of jobs and their accompanying salaries can have dramatic effects upon regional economies. The FIA provides information on those economic impacts and forecasts their future magnitudes. That

information can then be used by government officials to plan actions to maximize the positive effects on the area surrounding the base.

Along with the economic forecasts, the FIA provides information on fiscal impacts on local and state governments. Because all levels of government are affected by an expansion, jurisdictions must be aware of those anticipated impacts and their magnitudes. Revenue and expenditure flows will be changed at both state and local levels as a result of the new population and increased economic activity. An FIA provides information on these changes and serves as the basis for developing effective fiscal policies.

The main use of the FIA is to assist governments with growth-management planning. The FIA enables state and local governments to identify areas with potential negative impacts. Once these areas are identified, jurisdictions can develop plans to eliminate or mitigate potential problems. The FIA also provides the framework from which scenarios can be developed and analyzed and management strategies developed.

THE ROLE OF LOCAL COMMUNITIES AND THE STATE

Ultimately, local communities are responsible for managing growth within their jurisdictions. Federal and state agencies may offer assistance, but in the end, the communities themselves must take the actions and must live with their consequences. For that reason, local jurisdictions must be involved in every phase of growth management. They have a vested interest in ensuring that any analyses take into account local issues and that proposed solutions to growth problems are feasible.

The state government has a key role in the growth-management process. Georgia has many programs and offices that assist local communities in planning for growth. The state also has the resources to assist with capital requirements and to mitigate other fiscal problems when they occur. The State of Georgia has been an active participant in the naval base expansion at Kings Bay and has provided resources and technical assistance to impacted jurisdictions. As the expansion moves into its high-growth years and revenues to the state generated by Kings Bay increase, Georgia will assume an even more important role in the growth-management process.

The process leading to the development of a growth-management plan and its implementation is shown in Figure 2-1. After the initial EIS is completed, an initial FIA is prepared as the first step in the process, and the first activity in the initial FIA process is the establishment of a local organization to lead and coordinate local planning. For the Kings Bay expansion, the Kings Bay Impact Coordinating Committee (KBICC) fulfills this requirement for the impacted jurisdictions.

The KBICC works with local officials to develop growth-management plans and policies for the jurisdictions impacted by the Kings Bay expansion. Since the beginning of the expansion in 1978, local communities have dramatically increased their planning and management capabilities. In the early years of the expansion, the KBICC served as a major source of technical assistance to local communities. Now, with increased staffs and in many cases professional managers, local communities are much better prepared to plan for and manage growth.

Many growth-management actions have already occurred in the jurisdictions impacted by the Kings Bay expansion. In addition to the growth in local management capabilities, the State of Georgia has formed a task force to coordinate state actions. The state has also provided significant technical assistance in the area of growth-management planning to impacted jurisdictions. Many capital projects in support of the expansion have been completed or are being planned. State and Federal funding has been provided to assist local communities with capital costs in an effort to prevent local budgets from becoming strapped by the expansion. All levels of government have been active in preparing for the anticipated growth from the Kings Bay expansion.

THE OFFICE OF ECONOMIC ADJUSTMENT'S ROLE

Under Executive Order 12409, OEA is the lead office and coordinator of Federal assistance to local communities impacted by the expansion of military bases. Its first responsibility is to identify, in conjunction with the Military Services, those locations at which FIAs are needed. The EIS examines the macro-level economic impacts and provides the basis for determining whether a more detailed fiscal analysis is required. If a base expansion requires an FIA, OEA then analyzes the fiscal impacts that are expected from the base expansion.

The FIA identifies the impacts on, and the capabilities of, the local jurisdictions. If the short-term costs of growth exceed the fiscal capabilities of local juris-

dictions, OEA, in its role as the lead Federal agency for EAC, becomes the primary coordination point between the state and local communities and the Federal Government for intergovernmental assistance. Executive guidance states that local and state programs and then-existing Federal programs be utilized to provide assistance wherever possible. OEA takes the lead in coordinating any Federal financial support.

Another key OEA role is that of catalyst for organizing local communities to manage growth. Many communities have never had to manage rapid growth and, initially, are not prepared to address the key issues that must be resolved early during a rapid base expansion. Planning for those issues is essential if communities are to avoid or mitigate the negative consequences of rapid growth. OEA provides assistance in establishing local committees to address growth issues. It can also provide information on growth management to local organizations and help them view other communities that have experienced rapid growth as the result of military base expansions. The ability of the local communities to manage growth is the critical issue facing local jurisdictions in the Kings Bay area. How well they address that issue will determine whether the expansion benefits the communities or becomes a source of short-term problems.

CHAPTER 3

THE NEED FOR AN UPDATED FIA

A HISTORY OF FISCAL IMPACT ANALYSES AT KINGS BAY

The need for comprehensive analysis and planning for the area impacted by the expansion of the naval facility at Kings Bay was recognized from the inception of the project. The first of the major fiscal analyses was undertaken by the Navy; in 1981, the initial *Fiscal Impact Analysis, Naval Submarine Base, Kings Bay, Georgia*, addressed the population, economic, and fiscal consequences of the planned expansion based upon the information available at that time.

The next major analysis was an *Economic Adjustment Program* that was prepared by OEA; it was completed and made public in June, 1982. The purpose of that document was to provide initial guidance for the long-term efforts in mitigating growth impacts that local jurisdictions were beginning to face. It used information from the initial FIA and other sources to examine and propose strategies for maximizing the benefits of the expansion and minimizing potential problems.

In December, 1983, the Navy published a *Population Update for the Navy's Fiscal Impact Analysis*. It updated the population and economic projections given in the initial FIA. It was less detailed than the original FIA and only addressed changes in population, jobs, and salaries. A second *Population Update for the Navy's Fiscal Impact Analysis* was completed in October, 1985. Again, that document is limited in scope and addresses the changes in forecasts for population, jobs, and salaries that occurred since the 1983 update.

FEEDBACK AND REEVALUATION

A fiscal analysis should be periodically reevaluated to ensure that new information can be introduced into the initial analysis. Feedback and reevaluation is needed to correct assumptions that have not materialized and to prevent flawed assumptions from distorting growth-management decisions. (See Figure 2-1.)

Current information available for the Kings Bay expansion permits a validation and updating of many of the original FIA assumptions. Population and employment trends are becoming more visible as the expansion moves into the high-growth years, and the Navy has changed several important aspects of the base load-up schedule. New and better fiscal information is available for the jurisdictions that are expected to be impacted. Since the original FIA was published, the Department of Community Affairs (DCA) of the State of Georgia has instituted an ambitious annual fiscal data collection and analysis effort that has resulted in a large data base of fiscal information for all Georgia jurisdictions. This data base is in a consistent framework and facilitates fiscal trend analysis and forecasting. It provides a source of more accurate and consistent fiscal inputs than was previously available. New fiscal analyses benefit greatly from these two new sources of information – current observation and the Georgia DCA data base.

Finally, advances in computer technology have made possible the development of analysis tools that can rapidly evaluate and incorporate feedback. The effort required to reevaluate fiscal analysis or change assumptions can be dramatically reduced by automating the analysis with currently available software and hardware. Consequently, FIAs can now be structured so that scenario analyses can be performed and new input changes incorporated. All of these advances can help produce an FIA that can better support the growth-management process.

SUPPORTING GROWTH MANAGEMENT

Officials responsible for making growth-management decisions require accurate estimates of the anticipated growth impacts if they are to effectively manage growth. Most growth-management decisions are critically dependent on the accuracy of forecasts of expected changes. Those expected changes may be population changes, shifts in demographics, or changes in revenue and expenditure flows. It is imperative that officials have the best information available on growth impacts when setting policy and making management decisions.

Two types of information are needed by managers of growth. The first is the total changes, or impacts, that are expected to result from the expansion. That type of information is needed to accurately gauge the need for long-term programs such as a capital expansion program. For those types of activities, identifying the magnitude of the change is the major concern; the timing of the change is important

but not the critical item of information. The second type of information, the yearly incremental changes, is used to make shorter term planning decisions. Typically, that shorter term consists of the current year and 1 year into the future. For that shorter term planning, the timing and magnitude of the incremental changes are more important than the anticipated total changes. For short-term planning decisions in which cash flows are a major consideration, accurate incremental information is essential. A useful FIA must be capable of providing both types of information to growth planners in a timely fashion.

The ability to support scenario analysis is also an important characteristic of a useful FIA. Growth managers must often choose between various policy options that frequently create different impacts and affect different parts of the community. Few growth-management decisions are black and white; for most, the decision-maker must weigh the relative costs and benefits before choosing an alternative. Scenario analyses can greatly assist that process. Rapidly measuring the effect of various options provides officials with reference points and measures of the sensitivity of key variables. This type of information speeds the decision-making process and results in more effective decisions. A useful FIA not only provides the correct types of information, it also provides the ability to evaluate changes in scenarios.

CHAPTER 4

TECHNICAL APPROACH

Figure 4-1 shows the 10 major tasks undertaken in preparing the Updated FIA. The process begins with updating the jurisdiction historical data bases and progresses through model development. Once the initial model is developed, a number of review cycles are conducted with local and state officials and they culminate in the development of preliminary model results. These results are refined and analyzed and then presented to the KBICC and the State of Georgia.

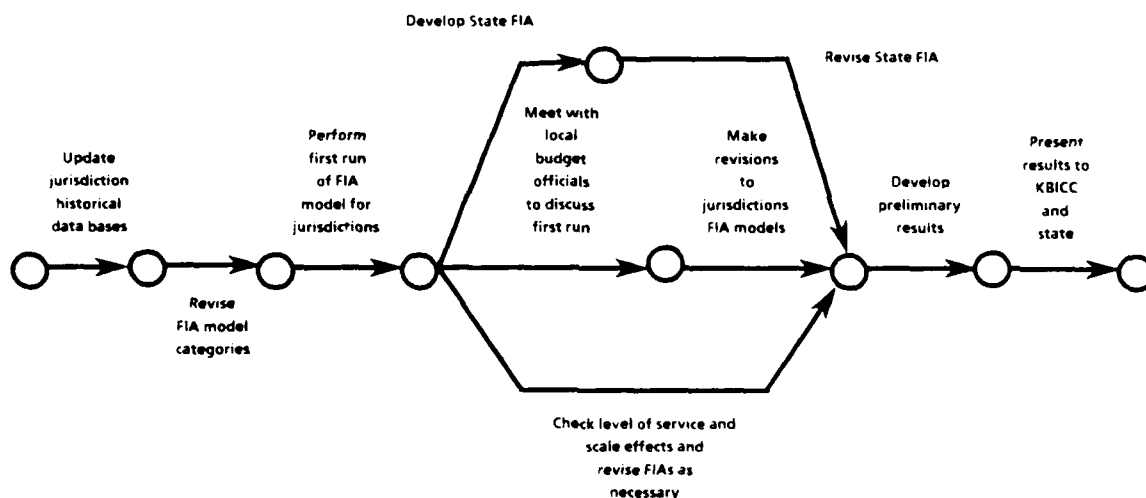


FIG. 4-1. FIA UPDATE PROCESS

THE PROJECT BASELINE

It is important to establish a reference baseline from which relative changes can be measured when performing analyses of growth impacts. In the case of the region surrounding Kings Bay, establishing a baseline is somewhat complicated. Baselines are normally defined as the conditions that existed before project-related changes began. If that definition is used for the Kings Bay expansion, the baseline would be 1978. However, the use of 1978 as the Kings Bay expansion baseline presents certain problems when comparisons are being made. The communities that

exist today bear little resemblance, in a fiscal and population sense, to the communities of 1978. Although the high-growth years of the expansion are still to come, these communities have already changed dramatically as a result of the expansion. They have added significantly to the government services provided, the population has increased greatly, and large-scale economic development has occurred. All of these factors make references to 1978 somewhat irrelevant. A new baseline is needed if comparisons are to be meaningful.

We selected FY85 as the new baseline for the Updated FIA because it provides a better reference point from which local officials can judge the impact of future changes. Using FY85 as the baseline does not mean that the fiscal impacts between 1978 and 1985 are ignored. In fact, the cumulative fiscal effects are reflected in each year's budget. For example: the FY85 budget reflects the costs for providing a service to a person in 1979 because that person is presumably still receiving that service in FY85. By using FY85 as the new baseline and 1978 as a reference point, we feel that meaningful comparisons can be made without losing the sense of the magnitude of the total impact.

THE FIA MODEL

The FIA model is the underlying framework for preparing the Updated FIA. It has been developed for use on a microcomputer and is designed to be easily updated and capable of supporting scenario analyses. The FIA model is supported by seven modules (Figure 4-2). The seven modules, or subanalyses of specific factors in the FIA model, all provide input data to the FIA model. Three modules are based on Navy inputs and four on local inputs. The Navy provides information for the Federal civilians, military population, and construction modules; the local jurisdictions provide information for the labor market, population distribution, indirect effects, and fiscal data modules. These modules identify key determinants of growth impacts, and changes to any of them can be run through the model and analytic responses given to program alterations or scenario-planning changes. Each module is briefly discussed in the following subsections.

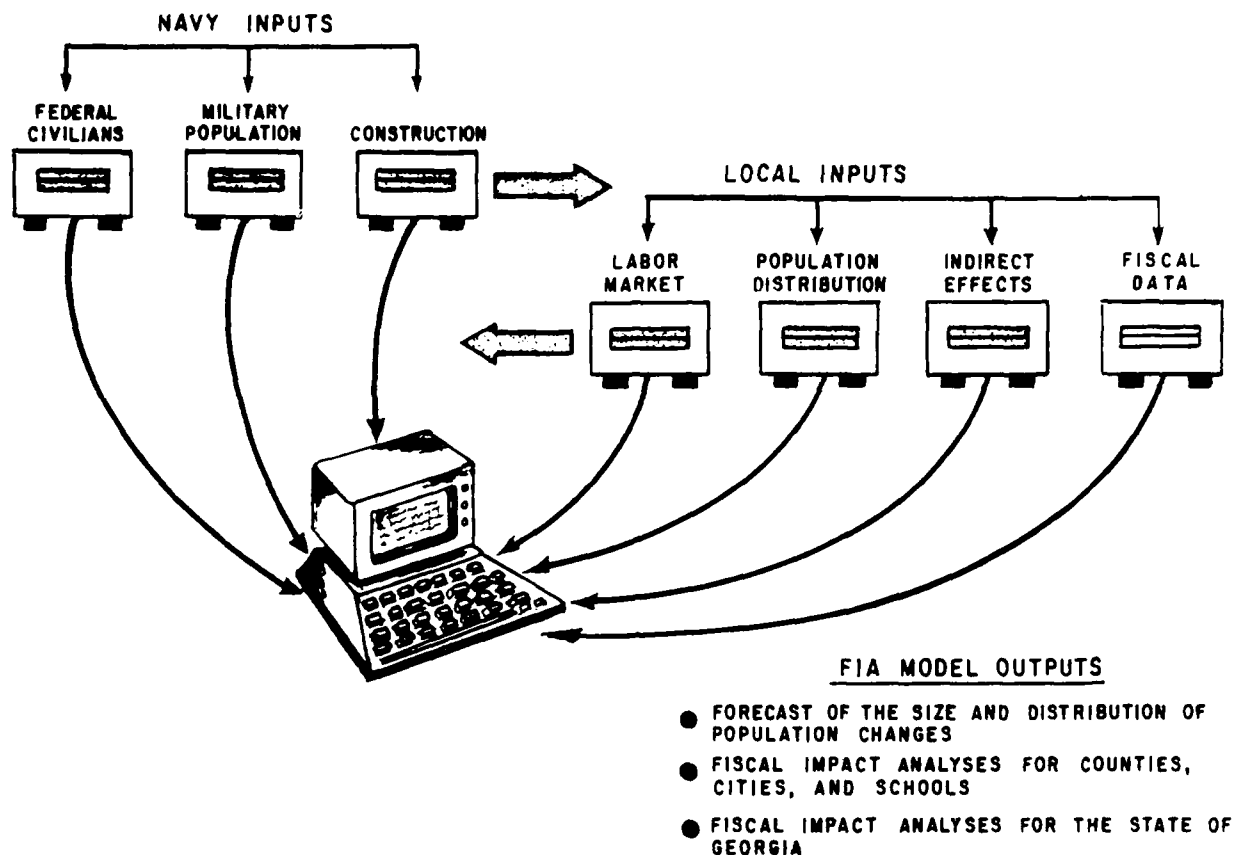


FIG. 4-2. FIA MODEL AND MODULES

Construction Module

The construction module takes the Navy's construction program and subdivides it into its component parts: labor costs, material costs, overhead and profit, and government administration costs. It also distributes construction activity over 2 years and estimates the annual number of construction jobs that will be required. The outputs from this module are also used in the population distribution module.

Military Population Module

The military population module is primarily a mechanism for tabulating information on military personnel. It uses the Navy's projected end strength in conjunction with the anticipated demographics (number married, family size, etc.) of the new military population to generate the number of military and dependents expected. It also uses the grade structure of the immigrating Navy personnel to

calculate the salaries that will be brought to the area. The population and salary summaries from this module are then used as the inputs to the population distribution module.

Federal Civilian Module

The Federal civilian module is similar to the military population module. New Federal civilians (contract personnel such as Lockheed are considered Federal civilians) are assumed to be representative of the national demographics in terms of family size, number married, etc. The population increase generated by the new Federal civilians and their salaries is used in the population distribution module and the indirect effects module.

Labor Market Module

The labor market module analyzes the supply and demand for labor in the impact area and provides an assessment of any supply/demand imbalances. The labor market module for the Kings Bay analysis is greatly simplified because of the existing labor conditions in the region surrounding Kings Bay. The existing labor supply that would be available to claim Kings Bay-related jobs is assumed to be zero in 1985. Thus, the only existing labor supply is the inflow of spouses of immigrants who wish to work. The FIA model treats the labor market as a dynamic condition that varies with base load-up and multiplier changes.

Indirect Effects Module

The indirect effects impacts are estimated by using the Regional Input-Output Modeling System II (RIMS II) developed at the Bureau of Economic Analysis, U.S. Department of Commerce. The basic RIMS II input-output model is combined with additional methodology to account for the unique characteristics of military bases. RIMS II quantifies the relationship between direct salaries and employment and indirect salaries and employment. These relationships are used in the FIA model to forecast the indirect employment and salaries created by the expansion.

Population Distribution Module

The population distribution module utilizes the characteristics of towns, villages, and cities to forecast where the new population will live. Eighteen characteristics were used initially to develop distribution factors. The relative

importance of each characteristic was determined by a committee of local residents and Navy personnel familiar with development in the area. Six of the initial 18 characteristics were judged to be the most significant. They are, in order of importance: travel time to central base, the quality of life, the availability of public and commercial services, access to the area, the availability of a public sewer system, and the availability of a public water system. These factors, in conjunction with the characteristic ratings for each jurisdiction, drive the population distribution forecast (a detailed description of the methodology is contained in the technical appendices to this Updated FIA), and the forecast of the expected distribution is used to quantify growth impacts in jurisdictions in the FIA model.

Fiscal Data Module

The fiscal data for the FIA model come from historic information obtained from the Georgia Department of Community Affairs (DCA) and local officials. The Georgia DCA maintains a large data base of fiscal information for every jurisdiction in the state. It also analyzes the information and provides comparative statistics for various-sized jurisdictions. Interviews with local officials were used to verify and supplement this information. Adjustments to DCA data were frequently made after consultations with local officials identified shifts in trends or errors in reported data. The combination of the two sources – DCA data base and local interviews – provided the fiscal inputs to the jurisdiction FIA models.

JURISDICTION FISCAL IMPACT ANALYSES

An FIA model was created for each jurisdiction being analyzed. These models are structured to reflect the factors that are unique to specific jurisdictions. The general analytic approach is to establish baseline operating expenditure and revenue trends based upon fiscal information for 1983, 1984, and 1985. These operating trends are adjusted to reflect inflation, anticipated changes in the levels of service provided, and known changes in tax laws and other legislation. Project-related revenue and expenditure forecasts are made by applying the trends to the projected population changes for a jurisdiction. Baseline capital requirements are estimated by looking at historic requirements and extrapolating them into the future. Capital forecasts for project-related requirements are made by analyzing each jurisdiction on a case-by-case basis with local officials. The total fiscal position

is created by combining the baseline and project-related forecasts for the operating and capital accounts into a single budget.

The model outputs for each jurisdiction are divided into three parts: baseline conditions, project-related impacts, and the new jurisdiction budget. The baseline condition outputs display the revenue, expenditure, and capital requirements for the 1985 baseline condition projected into the future under a minimal growth scenario. The project-related outputs depict the fiscal impacts that the expansion will create in the operating and capital accounts. In the new jurisdiction budget, the baseline and the project impacts are combined to show what the jurisdiction operating and capital accounts are expected to look like. Information is presented in terms of both incremental (year-to-year) and cumulative changes and is structured to maximize its usefulness to local officials in the growth-management process.

CHAPTER 5

GROWTH IN THE COUNTY AND LOCAL GOVERNMENTS

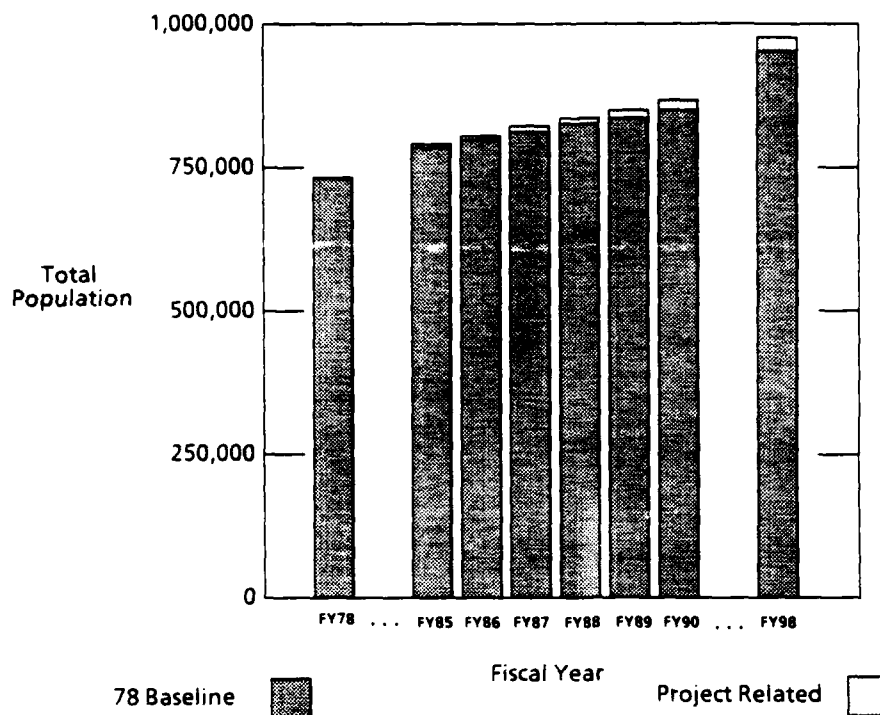
THE IMPACT AREA

The initial FIA identified a seven-county region that included counties from both Florida and Georgia (see the map on Figure 1-1). The selection of these counties was based on preliminary information about where the immigrating population was expected to live and the premise that all jurisdictions should be looked at until more reliable estimates of the population distribution could be made. Currently, a great deal more is known about the project, the area surrounding Kings Bay, and the immigrating population. Much information not available for the initial FIA has since been developed from actual observations of the immigration including gate surveys, school enrollments, new housing units, etc. This new information indicates that the primary impacts will be felt in an area much smaller than the original seven-county region.

We now estimate that Camden County will be the primary area affected by the expansion. The reason for this conclusion is apparent from an examination of the anticipated population distribution. The growth impact on the seven-county region is insignificant, while Camden County with 80 percent of the population growth will experience a large relative population increase (see Figures 5-1 and 5-2). The project will have some minor project impacts outside of Camden County; however, those impacts are not expected to be sufficiently large as to warrant separate analyses. Consequently, the following analyses will address the anticipated impacts in the political jurisdictions of Camden County: the Camden County government and the city governments of St. Marys, Kingsland, and Woodbine. The impacts on the Camden County School District are discussed in Chapter 6.

Primary Impact Area Baseline And Project-Related Growth

Camden County and its three cities have already experienced significant growth and are expected to continue to grow through 1998 (see Table 5-1). By then, the Camden County population will increase as a result of the project by nearly 23,000 which when added to the baseline will bring the total population to over



Note: The Kings Bay region includes the Georgia counties of Camden, Glynn, Brantley, Charlton, and Ware, and the Florida counties of Duval and Nassau.

FIG. 5-1. POPULATION GROWTH, KINGS BAY SEVEN-COUNTY REGION

39,000 people. The peak growth rates will occur in the 1987 to 1989 time period. Nearly 14,000 new direct and indirect jobs will be created in the county as a result of Kings Bay activity and those will generate more than \$294 million in new direct and indirect salaries by 1998.

The total operating revenues of the Camden County and local governments will grow to more than \$26 million by 1998, and of that, more than \$9 million is project-related growth. The mechanics of adding property to the tax rolls and the methods for calculating the size of various intergovernmental payments cause the growth in revenues to lag the growth in expenditures by as much as 2 years in some cases. This

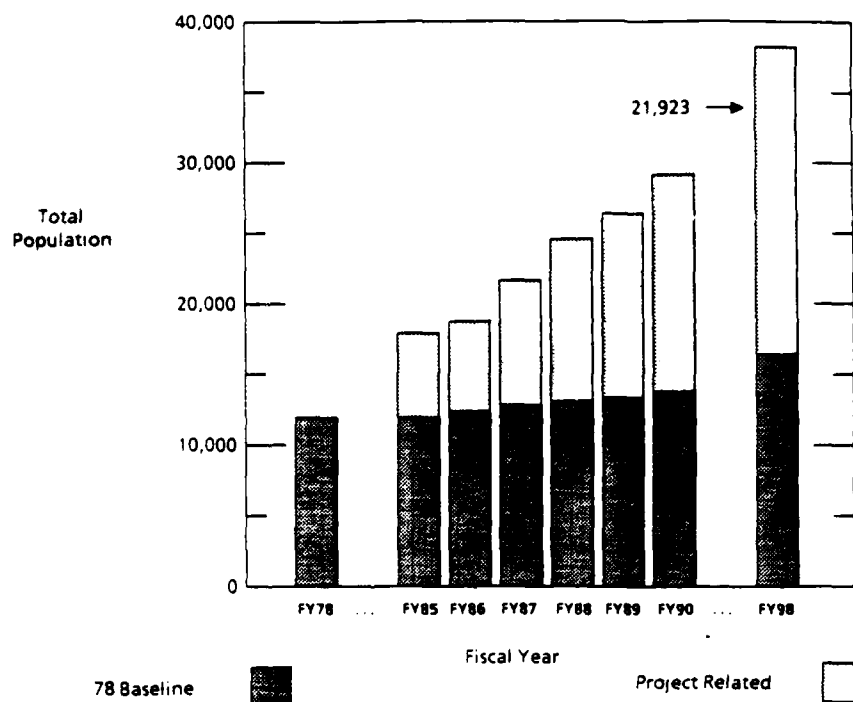


FIG. 5-2. POPULATION GROWTH, CAMDEN COUNTY

lag in revenues will produce some short-term cash flow problems in selected jurisdictions. In aggregate, however, project-related revenues will exceed project-related expenditures by \$0.97 million in 1998 (revenues of \$9.35 million – expenditures of \$8.38 million).

The new population will require additional capital for infrastructure improvements to roads, water and sewer facilities, etc. An estimated \$15 million beyond the capital invested in infrastructure prior to 1985 will be needed to meet the presently identified requirements. These capital requirements represent a major increase from existing and past capital budgets and will require jurisdictions to identify situations where user and impact fees are appropriate.

TABLE 5-1

GROWTH IN CAMDEN COUNTY AND LOCAL GOVERNMENTS

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Population									
1978 Baseline	12,000	12,028	12,347	12,687	13,027	13,367	13,707	13,707	16,427
Project related		6,153	6,542	8,148	11,696	14,373	15,516	15,516	22,811
New jobs									
Direct ^a		2,765	415	856	1,142	1,139	659	6,976	10,001
Indirect		2,324	166	342	457	435	264	2,790	4,000
New salaries									
Direct ^a		\$51.9	\$13.4	\$24.6	\$28.8	\$25.2	\$13.7	\$157.6	\$208.7
Indirect		\$21.3	\$ 5.5	\$10.1	\$11.8	\$10.3	\$ 5.6	\$ 64.6	\$ 85.6

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Revenues									
1985 Baseline		\$8.85	\$8.53	\$9.34	\$9.91	\$10.48	\$11.15	\$11.15	\$16.77
Project related			\$.83	\$1.67	\$2.48	\$ 3.69	\$ 4.37	\$ 4.37	\$ 9.35
Expenditures									
85 Baseline		\$6.18	\$7.30	\$8.29	\$8.70	\$ 9.25	\$ 9.73	\$ 9.73	\$14.88
Project related			\$.16	\$1.36	\$2.54	\$ 3.82	\$ 4.37	\$ 4.37	\$ 8.38
Capital expenditures									
85 Baseline		\$2.06	\$.51	\$1.30	\$1.38	\$ 1.37	\$ 1.40	\$ 8.03	\$15.77
Project related			\$.67	\$9.61	\$3.72	\$ 1.63		\$15.03	\$15.03

Note: Baseline conditions and project-related growth are cumulative except for new jobs, new salaries, and capital expenditures. Dollar figures are in millions of current year dollars. FY85 growth includes FY78 to FY84 increases, except for capital.

^a Direct jobs and salaries include new military, Federal civilian employees, and immigrating construction workers.

GROWTH IN CAMDEN COUNTY GOVERNMENT

As shown in Table 5-2, Camden County government will experience a project-related increase in population of 22,811 by 1998. Nearly 14,000 new direct and indirect jobs will be created in the county and new direct and indirect salaries will bring \$294 million into Camden County.

The Camden County government will experience large increases in its operating budget. County revenues will grow from \$4.47 million in 1985 to \$16.65 million in 1998, while expenditures will grow from \$3.39 million in 1985 to \$12.58 million in 1998. The operating surplus is the result of a doubling of the Camden County local option sales tax. This surplus will likely not occur since the

TABLE 5-2

GROWTH IN CAMDEN COUNTY GOVERNMENT

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Population									
1978 Baseline	12,000	12,028	12,347	12,687	13,027	13,367	13,707	13,707	16,427
Project related		6,153	6,542	8,148	11,696	14,373	15,516	15,516	22,811
New jobs									
Direct ^a		2,765	415	856	1,142	1,139	659	6,976	10,001
Indirect		2,324	166	342	457	435	264	2,790	4,000
New salaries									
Direct ^a		\$51.9	\$13.4	\$24.6	\$28.8	\$25.2	\$13.7	\$157.6	\$208.7
Indirect		\$21.3	\$ 5.5	\$ 10.1	\$11.8	\$ 10.3	\$ 5.6	\$ 64.6	\$ 85.6

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Revenues									
1985 Baseline		\$4.47	\$4.76	\$5.83	\$6.22	\$6.60	\$7.05	\$7.05	\$11.12
Project related			\$.33	\$.77	\$1.19	\$1.94	\$2.47	\$2.47	\$ 5.53
Expenditures									
1985 Baseline		\$3.39	\$3.96	\$4.31	\$4.59	\$4.88	\$5.20	\$5.20	\$8.17
Project related			\$.08	\$.67	\$1.27	\$1.94	\$2.23	\$2.23	\$4.41
Capital expenditures									
1985 Baseline		\$.56	\$.22	\$.24	\$.26	\$.27	\$.29	\$1.84	\$ 4.9
Project related				\$1.73				\$1.73	\$1.73

Note: Baseline conditions and project-related growth are cumulative except for new jobs, new salaries, and capital expenditures. Dollar figures are in millions of current year dollars. FY85 growth includes FY78 to FY84 increases, except for capital.

^a Direct jobs and salaries include new military, Federal civilian employees, and immigrating construction workers.

tax increase has been specifically earmarked for road and bridge construction and expenditures in those areas are likely to increase proportionately. Without this increase, the new population pays for itself in the operating budget by 1989 and would generate a modest operating surplus by 1998. The technical appendices provide detailed information for this cash flow analysis.

The population increase will generate a requirement for additional capital expenditures for courts, public works, libraries, and highways. These expenditures are estimated to be \$1.73 million in addition to the amounts expended by 1986 on capital improvements.

GROWTH IN ST. MARYS

The City of St. Marys is expected to grow by 5,901 people by 1998 as a result of the expansion, with the peak growth occurring in the 1987 to 1989 time period. Four thousand new direct and indirect jobs will be created, and approximately \$86 million of new direct and indirect salaries will be brought into the city (see Table 5-3).

TABLE 5-3
GROWTH IN ST. MARYS

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Population									
1978 Baseline		5,145	5,356	5,434	5,521	5,592	5,672	5,672	6,349
Project related		1,722	1,826	2,564	3,236	3,918	4,192	4,192	5,901
New jobs									
Direct ^a		799	121	248	330	329	190	2,016	2,889
Indirect		671	48	99	132	131	76	806	1,156
New salaries									
Direct ^a		\$15.1	\$4.0	\$7.2	\$8.4	\$7.4	\$4.0	\$46.0	\$60.8
Indirect		\$ 6.2	\$1.6	\$3.0	\$3.4	\$3.0	\$1.6	\$18.9	\$24.9

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Revenues									
1985 Baseline		\$2.20	\$2.32	\$2.19	\$2.30	\$2.40	\$2.53	\$2.53	\$3.28
Project related			\$0.26	\$0.42	\$0.59	\$0.74	\$0.92	\$0.92	\$1.86
Expenditures									
1985 Baseline		\$1.74	\$1.97	\$2.45	\$2.49	\$2.64	\$2.71	\$2.71	\$4.05
Project related				\$.36	\$.65	\$.96	\$1.09	\$1.09	\$1.92
Capital expenditures									
85 Baseline		\$.21	\$.13	\$.14	\$.15	\$.16	\$.17	\$.96	\$2.70
Project related				\$1.88	\$3.25	\$.80		\$5.93	\$5.93

Note: Baseline conditions and project-related growth are cumulative except for new jobs, new salaries, and capital expenditures. Dollar figures are in millions of current year dollars. FY85 growth includes FY78 to FY84 increases, except for capital.

^a Direct jobs and salaries include new military, Federal civilian employees, and immigrating construction workers.

Revenues are forecast to increase from \$2.20 million in 1985 to \$5.14 million by 1998 and expenditures to increase from \$1.74 million in 1985 to \$5.97 million by 1998. The resulting operating deficit is a result of the higher levels of service that the City of St. Marys expects to provide during the expansion years without

changing its existing tax structure. Our analysis indicates that either service expectations or the tax structure will have to be changed. If revenues and expenditures were balanced in the baseline condition, the new project-related population would provide an operating budget surplus by 1998. The magnitude and timing of the surplus would be determined by the new tax structure and expenditure plans.

St. Marys will experience significant capital requirements as a consequence of the population increase. An additional \$5.93 million beyond that expended by 1986 will be required for infrastructure relating to government administration, police, fire, public works, parks and recreation, libraries, water and sewer, and highways.

GROWTH IN KINGSLAND

The City of Kingsland is expected to grow by about 5,500 people as a result of the expansion with the high-growth years being 1987 through 1989. This growth will create more than 3,700 new direct and indirect jobs in Kingsland by 1998, and those new jobs will generate \$79 million worth of salaries (see Table 5-4).

Revenues are forecasted to increase from \$1.15 million in 1985 to \$2.78 million by 1998. Expenditures are forecasted to increase from \$0.81 million in 1985 to \$3.42 million by 1998. The resulting operating deficit comes from the higher level of service that Kingsland expects to provide without changing its existing tax structure. Accordingly, there would be an operating baseline deficit as well as a project-related condition. If revenues and expenditures were balanced in the baseline condition, the new population would create an operating budget surplus by 1998. The magnitude and timing of that surplus would be determined by the new tax structure and expenditure plans.

Kingsland will require significant capital improvements if it is to meet the infrastructure needs created by the increased population. Many of these capital requirements have already been met through a combination of State, Federal, and local efforts. The baseline capital requirements include some discretionary projects such as the new civic center and theater which will likely be deferred until funds are available. Other projects such as sidewalks and curbs in new developments are frequently treated as developer requirements or are paid for through impact fees or assessments. There is, however, one major capital requirement that has been identified that has not yet been satisfied, nor can it be deferred. The City of

Kingsland will require additional water and sewer capacity for the period beyond 1988. The total cost for this additional capacity is estimated to be \$5.1 million of the total \$5.5 million FY87 requirement.

TABLE 5-4
GROWTH IN KINGSLAND

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Population									
1978 Baseline		3,048	3,618	3,675	3,733	3,792	3,851	3,851	4,349
Project related		1,590	1,686	2,366	2,989	3,622	3,878	3,878	5,524
New jobs									
Direct ^a		736	112	228	304	303	175	1,858	2,662
Indirect		618	45	91	121	121	70	743	1,065
New salaries									
Direct ^a		\$13.9	\$3.7	\$6.7	\$7.8	\$6.8	\$3.7	\$42.4	\$56.0
Indirect		\$5.7	\$1.5	\$2.7	\$3.2	\$2.8	\$1.5	\$17.4	\$23.0

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Revenues									
1985 Baseline		\$1.15	\$1.05	\$0.91	\$0.97	\$1.02	\$1.08	\$1.08	\$1.64
Project related			\$0.21	\$0.35	\$0.48	\$0.58	\$0.71	\$0.71	\$1.14
Expenditures									
1985 Baseline		\$0.81	\$1.03	\$1.15	\$1.22	\$1.31	\$1.36	\$1.36	\$1.98
Project related			\$0.03	\$.25	\$.46	\$.68	\$.78	\$.78	\$1.44
Capital expenditures									
1985 Baseline		\$.56	\$.13	\$.90	\$.95	\$.91	\$.92	\$4.38	\$7.00
Project related				\$5.50	\$.33	\$.55		\$6.40	\$6.40

Note: Baseline conditions and project-related growth are cumulative except for new jobs, new salaries, and capital expenditures. Dollar figures are in millions of current year dollars. FY85 growth includes FY78 to FY84 increases, except for capital.

^a Direct jobs and salaries include new military, Federal civilian employees, and immigrating construction workers.

GROWTH IN WOODBINE

The City of Woodbine's population is expected to grow by almost 1,700 as a result of the expansion with the high-growth years being 1988 through 1989. The growth will create approximately 1,100 new direct and indirect jobs for residents of Woodbine and its service area, and those new jobs will bring in \$30 million in new annual salaries (see Table 5-5).

TABLE 5-5
GROWTH IN WOODBINE

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Population									
1985 Baseline		911	966	981	998	1,014	1,030	1,030	1,169
Project related		483	505	710	905	1,098	1,176	1,176	1,679
New jobs									
Direct ^a		226	31	68	95	94	55	569	819
Indirect		191	12	27	38	38	22	227	328
New salaries									
Direct ^a		\$4.8	\$1.8	\$3.0	\$3.2	\$2.7	\$1.4	\$17.0	\$21.5
Indirect		\$2.0	\$0.7	\$1.2	\$1.3	\$1.1	\$0.6	\$ 6.9	\$ 8.8

	FY78	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Revenues									
1985 Baseline		\$1.03	\$0.41	\$0.41	\$0.43	\$0.46	\$0.49	\$0.49	\$0.74
Project related			\$0.03	\$0.12	\$0.21	\$0.32	\$0.37	\$0.37	\$0.72
Expenditures									
1985 Baseline		\$0.24	\$0.35	\$0.37	\$0.40	\$0.42	\$0.44	\$0.44	\$0.67
Project related			\$0.01	\$0.08	\$0.16	\$0.24	\$0.27	\$0.27	\$0.52
Capital expenditures									
1985 Baseline		\$0.74	\$0.02	\$0.02	\$0.03	\$0.03	\$0.03	\$0.86	\$1.15
Project related		\$0.07	\$0.48	\$0.14	\$0.28			\$0.97	\$0.97

Note: Baseline conditions and project-related growth are cumulative except for new jobs, new salaries, and capital expenditures. Dollar figures are in millions of current year dollars. FY85 growth includes FY78 to FY84 increases, except for capital.

^a Direct jobs and salaries include new military, Federal civilian employees, and immigrating construction workers

Revenues are forecast to increase from a baseline level of \$0.41 million in 1986 to \$1.46 million by 1998, and associated expenditures are forecast to increase from a

baseline level of \$0.35 million in 1986 to \$1.19 million by 1998 (1986 is used because 1985 is distorted by the large one time revenue and corresponding expenditure associated with a capital improvement grant). The revenue and expenditure flows for Woodbine reflect the positive cash flow that is forecast in the baseline condition in conjunction with a positive cash flow from the new population.

Woodbine anticipates project-related capital expenditures of \$0.97 million in excess of those already funded. The requirements are expected to occur in the police, fire, public works, and utility areas during the period 1986 to 1988. The modest nature of these capital requirements is due to the relatively small population increase that is anticipated in Woodbine.

SUMMARY OF GROWTH IMPACTS ON LOCAL GOVERNMENTS

The local governments in Camden County will be significantly affected by the expansion of the submarine base at Kings Bay. Camden County will experience major population increases that generate positive operating cash flows. The same is true for Woodbine, although in the case of Woodbine, the absolute size of the population increase is modest. The most significantly affected communities will be St. Marys and Kingsland, which will experience large relative population increases that will create initial cash-flow problems because of the lag in revenues. The operating cash-flow problems begin in the baseline condition and continue with the new project. Their primary causes are the higher levels of service that St. Marys and Kingsland expect to provide without changing their existing tax or fee structures.

Capital requirements are modest with the exception of Kingsland and St. Marys. The relatively small size of the capital requirements is due to the recent efforts by the State, Federal, and local governments to build up the infrastructure needed to support the expansion. The capital requirements that remain are for public works, water and sewer, and facilities for police, fire, and general government functions. Jurisdictions will need to identify situations where user and impact fees are appropriate funding mechanisms for new capital requirements, and fee structures should be established early in the expansion so that revenues will be maximized and equity among new residents assured.

CHAPTER 6

GROWTH IN THE CAMDEN COUNTY SCHOOL DISTRICT

The Camden County School District is the only school district that serves the primary impact area. It currently consists of six schools: four elementary schools, a middle school, and a high school. Since 1978 when there were four schools, the student enrollment has increased from a 1985 baseline of nearly 2,800 to a total of 4,400 (a baseline of 2,831 plus the 1985-1987 project growth) in the 1987 school year. By 1998, the student enrollment is forecast to increase by nearly 5,000 students from pre-expansion levels. The forecasts for the yearly student enrollment increases are shown in Table 6-1. The net result of the expansion will be to nearly triple by 1998, the total number of students in the Camden County School District (see Figure 6-1). This rapid growth will create significant fiscal impacts for the school district.

TABLE 6-1

**CAMDEN COUNTY SCHOOL DISTRICT ENROLLMENT, OPERATING REVENUES AND EXPENDITURES
BY SCHOOL YEAR**

	1985	1986	1987	1988	1989	1990	1990 Cumulative	1998 Cumulative
Enrollment								
1978 Baseline	2,821	2,821	2,831	2,841	2,851	2,861	2,861	2,941
Project related	790	530	248	569	570	476	3,183	4,949
Revenues								
1985 Baseline	\$8.2	\$8.3	\$9.4	\$9.8	\$10.2	\$10.6	\$10.6	\$13.7
Project related			\$0.4	\$1.1	\$ 1.4	\$ 1.3	\$ 4.2	\$ 9.5
Expenditures								
1985 Baseline	\$8.3	\$8.3	\$10.2	\$10.7	\$11.1	\$11.5	\$11.5	\$14.9
Project related			\$ 0.6	\$ 1.5	\$ 1.5	\$ 1.3	\$ 4.9	\$10.3

Operating expenditures are the major item on the school district budget. The local school district contribution toward operating expenditures is 33 percent of the total requirement. The State of Georgia historically contributes 65 percent of the operating expenditures through the Adequate Program of Education Grant (APEG) system and the Federal Government contributes the remaining 2 percent. Slightly

more than half of the school district's operating expenditures are related to instruction; the remainder is divided among administration, maintenance, and other operations.

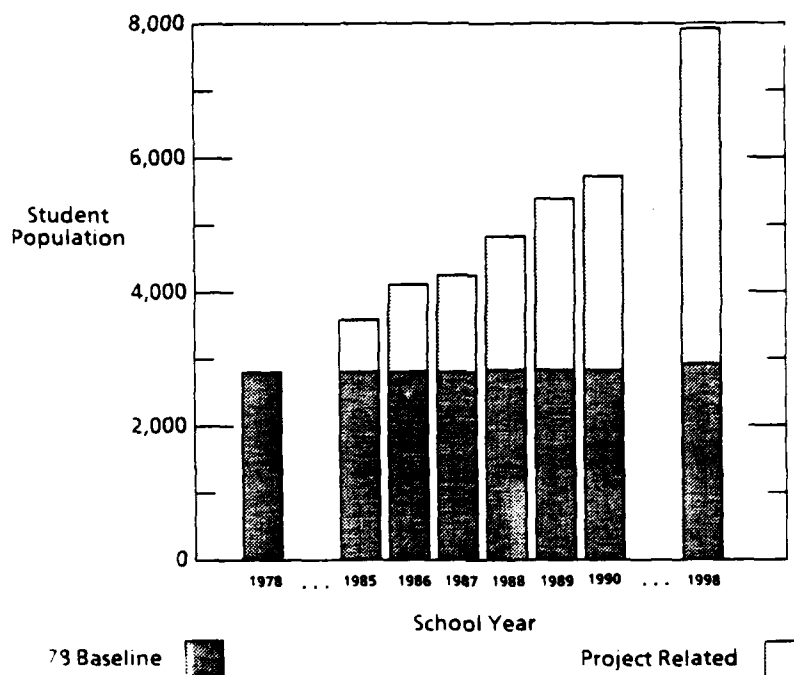


FIG. 6-1. CAMDEN COUNTY SCHOOL DISTRICT STUDENT ENROLLMENT GROWTH

Two factors currently have a major impact on the operating budget of the Camden County School District. First, the expansion of the Kings Bay naval base and its related student enrollment increase is placing large demands on the operating budget, demands that would, by themselves, be a significant problem. However, coupled with the increase in student enrollment are a series of new program and facility requirements being placed on all Georgia schools by the state. Those requirements, established under the Quality Basic Education (QBE) Act, are also impacting heavily on the operating budget of the Camden County School District. The combination of those two extraordinary factors is creating significant operating budget problems.

The operating revenue and expenditure forecasts for the baseline condition and with the project-related impact are shown in Table 6-1 and Figure 6-2. A deficit in the operating budget is forecast in the baseline condition for every year from 1987 through 1998. The baseline revenues are projected to increase from \$8.2 million in

1985 to \$13.7 million by 1998, while the concurrent expenditures will grow from \$8.3 million in 1985 to \$14.9 million in 1998. The deficit is caused by the assumptions that the requirements of the QBE Act will be met, local taxes will remain constant, state contributions will not increase, and instructional costs will increase. The effect of these assumptions is to create an operating budget deficit. In reality, that deficit will not occur. In the absence of increased state funding, the school district will either have to scale back its plans or increase taxes to balance the budget.

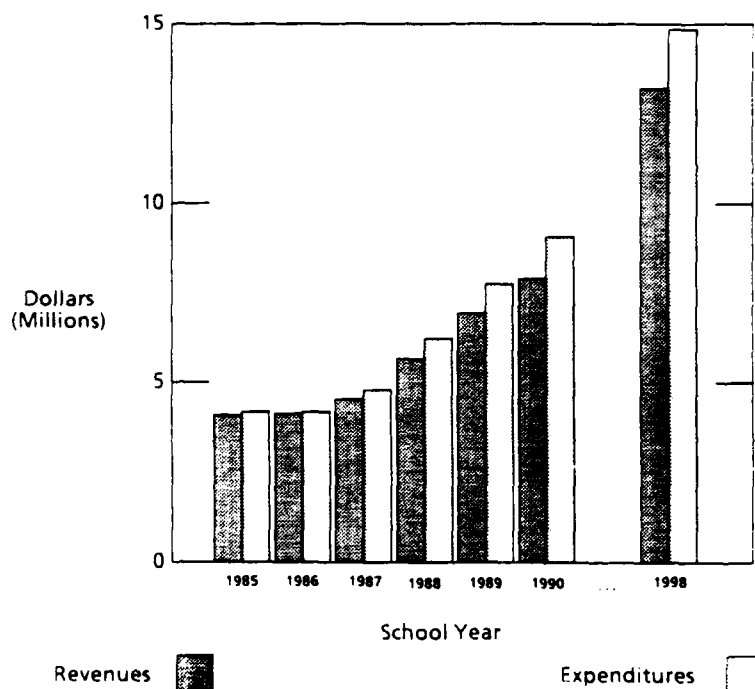


FIG. 6-2. CAMDEN COUNTY SCHOOL DISTRICT PROJECT-RELATED REVENUES AND OPERATING EXPENDITURES (1985 - 1998)

The immigrating population is expected to have demographic and tax characteristics similar to those of existing residents. However, the revenues generated locally by the new population are delayed by 1 year from the time of arrival to account for the lag of new property appearing on the tax rolls. The project-related revenues and expenditures reflect the same trend as the baseline condition. Again, the assumptions mentioned previously create an operating deficit from the project-related student increase. Revenues from project-related student growth are projected to increase over current levels by \$9.5 million, while expenditures will grow by an additional \$10.3 million. As previously noted, this operating deficit is

somewhat misleading. The marginal rates for expenditures and revenues are determined from the baseline condition. This means that an operating deficit in the baseline condition will automatically create a project-related deficit, and conversely, a balanced operating budget in the baseline condition will result in a balanced project-related operating budget impact.

The Camden County School District will experience significant project-related capital requirements as shown in Table 6-2. The growth in student enrollment will generate a total capital requirement of \$41.4 million by 1998. Some \$14.5 million of this requirement will have been addressed by the end of 1987, leaving a large capital program of \$26.9 million for the 1988 – 1998 time period. Estimates indicate that \$16.5 million of that capital requirement will occur in the 1988 – 1992 time period and the remaining \$10.4 million in the 1993 – 1998 period. Meeting that capital requirement is the largest challenge facing the Camden County School District. The capital needs, to date, have been met through a combination of local, state, and Federal monies. Figure 6-3 shows the relative contribution of funding source.

TABLE 6-2
SCHOOL CAPACITY AND ASSOCIATED CAPITAL REQUIREMENTS

	FY78 – FY84	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative	FY88 – FY98
Available seats		3,400	3,500	4,000	4,650	5,600	5,600	5,600	7,891	
Required seats		3,612	4,142	4,400	4,979	5,559	6,046	6,046	7,891	
Shortfall (excess)		212	642	400	329	(41)	446	446	0	
Capital expenditure	\$5.0	\$1.0	\$3.5	\$5.0	\$7.6	0	\$2.9	\$25.0	\$41.4	\$26.9

The combined effect of the QBE requirements and the increased student enrollment on the operating budget of the Camden County School District has reduced the local capability to fund part of the capital requirement created by the expansion. It is unlikely that the school district will be able to make any significant fiscal contribution to the capital requirement; it will require assistance from the state and Federal governments if capital needs are to be met.

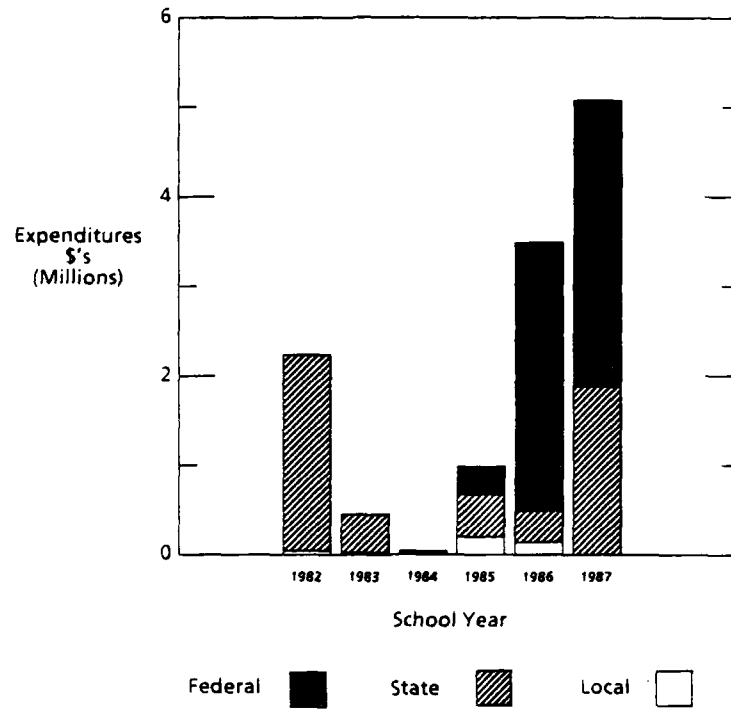


FIG. 6-3. CAMDEN COUNTY SCHOOL DISTRICT CAPITAL EXPENDITURES
(By year of expenditure)

CHAPTER 7

GROWTH IN THE STATE OF GEORGIA

Population growth in the State of Georgia brought about by the expansion of the naval base at Kings Bay is forecast to exceed 24,000 people by 1998 (see Table 7-1). The increased population includes new Navy families, Federal

TABLE 7-1
GROWTH IN THE STATE OF GEORGIA

	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Population Project related	6,522	6,978	9,860	12,627	15,555	16,770	16,770	24,504
New jobs								
Direct ^a	2,850	444	892	1,171	1,168	676	7,201	10,390
Indirect	1,397	218	437	574	572	331	3,529	4,981
New salaries								
Direct ^a	\$54.4	\$15.3	\$27.2	\$31.3	\$27.1	\$14.6	\$169.9	\$224.9
Indirect	\$27.2	\$ 7.7	\$13.6	\$15.6	\$13.6	\$ 7.3	\$ 85.0	\$112.5

	FY85	FY86	FY87	FY88	FY89	FY90	FY90 Cumulative	FY98 Cumulative
Revenues								
Project related (nonconstruction)	\$2.34	\$2.74	\$5.45	\$7.86	\$10.32	\$11.25	\$11.25	\$17.55
Project related (construction)	\$3.0	\$4.18	\$5.12	\$ 4.50	\$ 3.19	\$ 1.38	\$21.41	\$23.11
Expenditures								
Project related	\$.99	\$2.04	\$3.29	\$ 5.04	\$6.79	\$7.84	\$7.84	\$12.52
Capital expenditures								
Project related	\$0.7		\$1.9				\$ 2.6	\$ 2.6

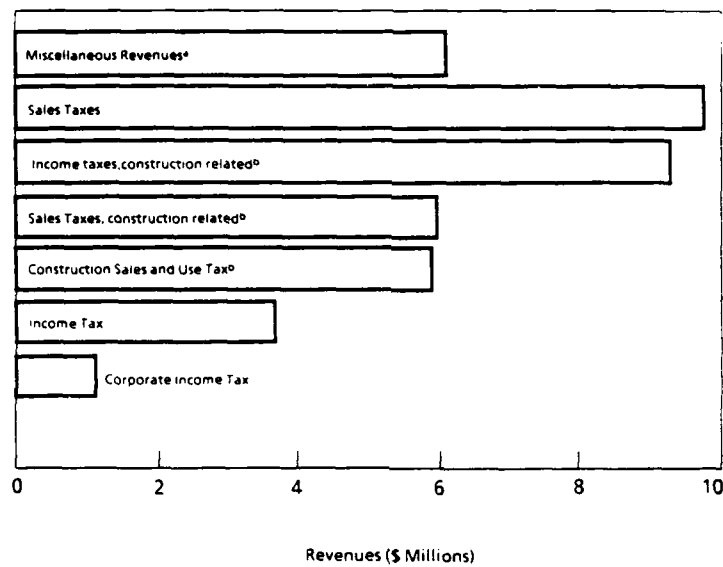
Note: Baseline conditions and project-related growth are cumulative except for new jobs, new salaries, and capital expenditures. Dollar figures are in millions of current year dollars. FY85 growth includes FY78 to FY84 increases, except for capital.

^a Includes new military, Federal civilian employees, and immigrating construction workers

Government workers, contractors to the Navy, and the indirect population. A large economic impact will also result from the expansion. More than 15,000 direct and indirect jobs will be created. Those jobs will bring nearly \$337 million in new salaries into the state every year.

Significant revenues and expenditures will be generated at the state level by the increases in population and jobs. The construction program will, by itself, generate a total of \$23 million in revenues from sales and use taxes on the construction materials and taxes paid by the construction workers during the construction phase. Additionally, other non-construction revenues totaling \$17.55 million annually by 1998 will be generated by the new Navy project and the related indirect growth in civilian population. A breakdown of the state revenues by source is presented in Figure 7-1. The increased population will also generate a demand for additional expenditures by the state. Those non-capital project related expenditures will grow to \$12.52 million by 1998 as shown in Table 7-1. Those revenues and expenditures will create a positive operating cash flow during all years of the expansion and, excluding construction revenues, it will be \$5 million annually in 1998. That positive cash flow is forecast to continue into the foreseeable future.

Some state level capital requirements will be incurred as a result of the expansion. These capital requirements from 1978 through 1987 total \$5.6 million and consist of the state contribution to school construction and some minor capital projects. The state's future contribution to the total school construction requirement of \$26.9 million will be the major capital expenditure needed for the remainder of the expansion. Offsetting these capital requirements are the \$23 million in revenues from the construction program and the annual \$5 million cash flow.



*Miscellaneous revenues are total revenues derived from such sources as motor vehicle licenses, other licenses, intergovernmental revenues, and miscellaneous charges and fees.

^oConstruction revenues are cumulative for 1985 - 1998. Other revenues are the steady-state annual flows.

FIG. 7-1. 1985 - 1998 PROJECT-RELATED REVENUES BY SOURCE, STATE OF GEORGIA

CHAPTER 8

SUMMARY AND CONCLUSIONS

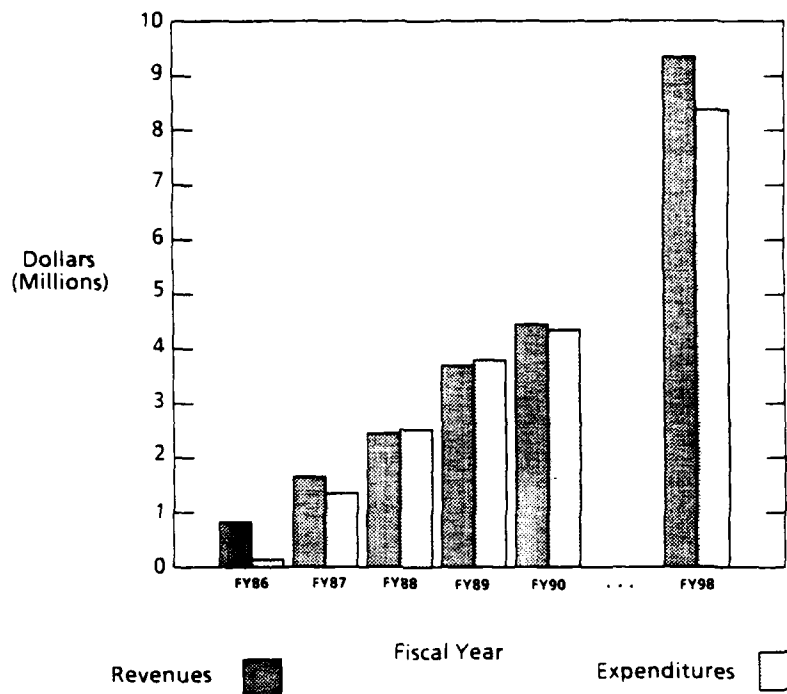
SUMMARY

Local Governments

Camden County, the primary impact area, will be significantly affected by expansion of the naval submarine base at Kings Bay. By 1998, its population will increase by nearly 23,000 people as a result of the expansions. The increased population will bring nearly 14,000 new military and civilian jobs to the county. These new jobs will increase salaries in the county by \$294 million by 1998. The increased jobs and population will impact on the revenue and expenditure flows of governments in Camden County.

Camden County and other local governments will experience a significant growth in revenues and expenditures. Revenues will increase from \$8.85 million in 1985 to \$26.12 million in 1998. Expenditures will grow from \$6.18 million in 1985 to \$23.26 million in 1998. The aggregate cash flow for Camden County and its local governments will be negative for 1988 through 1990 and will then go positive during the 1990 – 1998 period and build to a \$0.97 million positive cash flow by 1998 (see Figure 8-1). The cash flow, although positive, does not affect all jurisdictions equally. Some jurisdictions will have large negative cash flows in the early years, while others such as Camden County and Woodbine appear to be well positioned, from a fiscal prospective, to deal with growth. Projected deficits in the baseline condition indicate that St. Marys and Kingsland will need to reassess the level of service that they feel they can provide for their citizens. It will be necessary for those communities either to reduce the level of the services they expect to provide or consider methods of increasing revenues. In general, Camden County and its local governments should be able to meet the operating requirements that the expansion will create without the need for major revenue-enhancing measures.

The expansion will generate significant local government capital requirements totaling \$15 million for the period 1985 – 1998 (see Figure 8-2), and jurisdictions



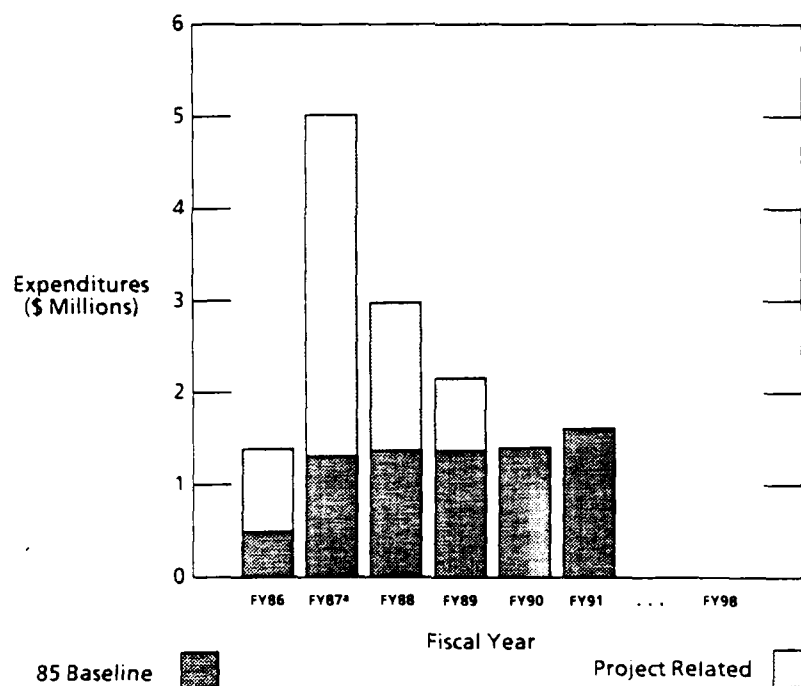
Note: Local governments only. Does not include Camden County School District.

FIG. 8-1. PROJECT-RELATED REVENUES AND OPERATING EXPENDITURES FOR CAMDEN COUNTY AND LOCAL GOVERNMENTS

will find it necessary to enact appropriate user and impact fees. The local governments have the fiscal capabilities to meet those requirements with the exception of the planned water and sewer expansion for Kingsland. Kingsland will require some state or Federal assistance if the currently envisioned plant expansion is to be accomplished.

Camden County School District

The Camden County School District will be significantly impacted by the expansion of Kings Bay. The increased population will result in nearly 5,000 new students in the school district by 1998. These new students will have a major impact on an operating budget that is already strained by the requirements of the QBE Act. Operating revenues will increase from \$8.2 million in 1985 to \$23.2 million in 1998 and will be more than matched by the \$16.9 million increase in expenditures to \$25.2 million. The forecasted operating budget shortfall has two major consequences. First, the Camden County School District will have to either scale back some planned discretionary expenditures or increase revenue sources. Second, the



Note: Local governments only. Does not include Camden County School District.
^aIncludes an estimate of \$5.1 million for Kingsland's sewer expansion in FY87

FIG. 8-2. CAPITAL EXPENDITURES FOR CAMDEN COUNTY AND LOCAL GOVERNMENTS

capability of the school district to service additional long-term debt is extremely limited. The combined effects of the QBE Act and the naval base expansion will strain the operating budgets of the Camden County School District for the foreseeable future.

The rapid increase in school enrollments will generate large capital requirements within the school district. The total capital requirement for the expansion period is estimated to be \$41.4 million of which \$14.5 million will have been met by the end of 1987. The remaining \$26.9 million poses a significant challenge to the Camden County School District. Meeting this challenge is the single most important issue facing the citizens of Camden County in the next 10 years.

The State of Georgia

The state has been an important contributor to meeting the needs of the residents of Camden County. State assistance has taken many forms. In addition to funding support for major capital projects, the state has applied its planning and

managerial expertise to expansion problems. The state will assume an even more important role as the expansion moves into the large-growth years, 1987 – 1990.

The State of Georgia will experience significant population impacts from the expansion of the naval submarine base at Kings Bay (see Figure 8-3). A recurring annual positive operating cash flow of \$5 million will be created by the expansion (Figure 8-4). A one-time positive operating cash flow of \$23.1 million will occur during the construction phase. Currently, the state plans future capital expenditures of \$1.9 million, which would be an offset to the positive operating cash flow. However, the State will likely be considering additional capital projects that it will either fund or contribute towards. These expected expenditures will be additional offsets to the positive operating cash flow.

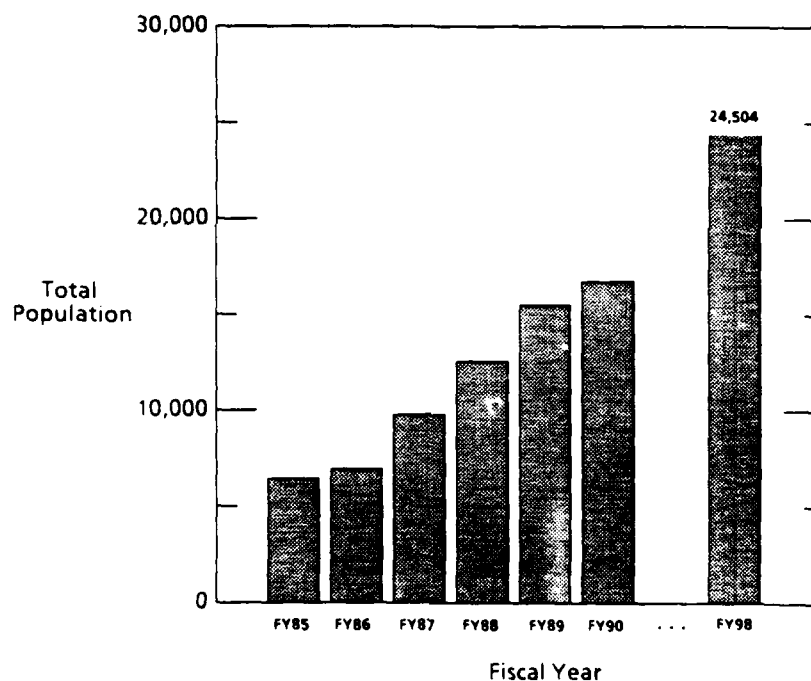
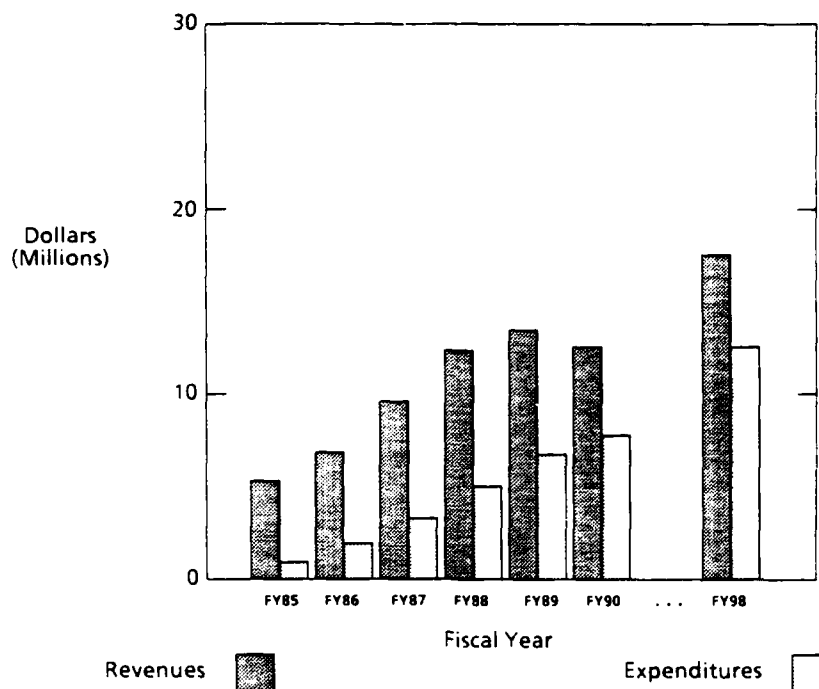


FIG. 8-3. PROJECT-RELATED POPULATION GROWTH, STATE OF GEORGIA

CONCLUSIONS

Camden County will be significantly affected by the growth generated by the expansion of the naval submarine base at Kings Bay. The county will transition from a rural economy with two major employers to a more diversified business and



Note: Project-related revenues are calculated by adding nonconstruction-related cumulative revenues and the annual revenues from construction-related sources.

FIG. 8-4. PROJECT-RELATED REVENUES AND OPERATING EXPENDITURES, STATE OF GEORGIA

employment base. The expansion will create economic opportunities at an unprecedented level in Camden County. The generation of private-sector wealth will be a major economic force in the Kings Bay area; the public sector will also grow significantly.

The county and local governments of Camden County have grown rapidly during the first years of the expansion, 1978 – 1985. This growth pattern will continue for the next 5 years, with 1987 – 1990 being a period of extremely rapid growth during which the increased population will create a demand for additional and new governmental services. Many of the local governments in Camden County will be providing such services for the first time and can be expected to experience some growing pains during the initial years. Potential cash flow problems are forecast for some jurisdictions for the next 5 years. These cash flow problems will be temporary. Local governments with proper planning and management should be capable of meeting the increased operating budget demands that will accompany the expansion. The rapid growth will generate large capital requirements for local governments. Many of these capital requirements have already been met through a

combination of local, state, and Navy efforts. Addressing the remaining local government capital requirements is within the capability of all local governments with the exception of the Kingsland water and sewer expansion. The magnitude of that project will exceed the fiscal capability of Kingsland and some state or Federal assistance is required. In general, the community impact assistance program has, thus far, provided the communities surrounding Kings Bay with the critical infrastructure that is required in the early phases of the expansion. The governments of Camden County are well positioned to begin the high-growth years of the expansion.

The Camden County School District is the jurisdiction that will be most severely impacted by the expansion. The QBE Act is presently straining school operating budgets, and the additional stress that will be created by the increased enrollments will place the Camden County School District in serious fiscal condition. In addition to that operating problem, the school district faces a large capital requirement for new schools, and it will be unable to meet both the operating and capital requirements with its own resources. It may, with strict fiscal management, be able to prevent major operating shortfalls, but it will require significant assistance from state or Federal sources if capital needs are to be met.

The State of Georgia will have large one-time positive cash flows during the construction phase and significant annual positive cash flows throughout the life of the project. The state has assumed a leadership role in the establishment of growth-management strategies. In that role, it has provided invaluable assistance to the local communities. The state's role will be even more important in the remaining years of the expansion. It is essential that the State of Georgia be part of any plan to mitigate the negative effects of the expansion. The state has the expertise and resources to assist in the planning and implementation of capital improvement and other plans. It is unlikely that any growth-management plan will succeed without significant state participation.

The expansion of the naval submarine base at Kings Bay will result in many changes in Camden County. Some of those changes will create short-term problems for local jurisdictions, while others will provide positive benefits. In both cases, it is essential that managers at all levels of Government and in the school district plan to manage growth. Only by such planning can the negative impacts be minimized and the positive benefits amplified. With a well-considered and executed growth-

management plan, Camden County can look forward to a period of economic growth that should generate significant benefits to the area.