

How Florida Compares: An Approach for Analyzing Government Staffing Levels

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OFFICE OF PROGRAM POLICY ANALYSIS AND GOVERNMENT ACCOUNTABILITY



John W. Turcotte, Director

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The President of the Senate, the Speaker of the House of Representatives, and the Legislative Auditing Committee

As requested by the Legislative Auditing Committee, I have directed that an approach be developed to analyze state and local government staffing levels. The results of this effort are presented to you in this report. This review was conducted by Nancy Dufoe, Robbie Brunger, and Lesley Kalan under the supervision of Julie Ferris.

Sincerely,

John W. Turcotte Director

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Executive Summary

How Florida Compares: An Approach for Analyzing Government Staffing Levels

Scope

OPPAGA conducted this review at the direction of the Joint Legislative Auditing Committee. The review assessed methods to analyze state and local government staffing levels in Florida. The specific objectives of the review were to

- compare Florida's state agency staffing levels to staffing levels of other states;
- identify factors influencing those staffing levels;
- determine what influence local government staffing levels have on Florida's staffing levels; and
- identify methods that Florida could use to more closely evaluate the use of staffing resources.

OPPAGA will issue a second report in 1999 that examines the resources (staffing and funding) allocated to administrative functions in state agencies. The report will identify potential staffing and efficiency ratios, benchmarks, and options for evaluating staffing and costs.

Background The size of government is an important policy issue at the federal level and in many states, including Florida. Public employment is part of the service-producing sector, which is the largest and fastest growing sector of the U.S. economy. The number of state employees in Florida increased at almost twice the rate of the state population between 1987 and 1995. This growth has led some policymakers to question whether government has too many employees. A relatively large number of employees generally indicates a large government. A recent survey of public attitudes found that many felt that state government is too big and bureaucratic to be effective.

Florida has historically taken steps to limit the number of state employees. During the mid-1980s, for example, the Governor's Office established an informal policy to limit the size of state government to 1% of the state's population.¹ It is important for Florida to continue to implement strategies for monitoring and controlling staffing levels to ensure the levels are appropriate. One method for beginning an assessment of the size of Florida's public sector workforce is to compare it to those in other states.

Conclusions Florida's staffing levels rank relatively low when compared to other states. Moreover, the staffing levels for most types of government services tend to be comparable with other states. Florida's state agency staffing levels exceed other states' primarily in the public safety and justice services area. When local government full-time equivalent (FTE) positions are added to the analysis, Florida shows higher-than-average staffing levels in the natural resources services area.² These levels must be interpreted with caution because they are linked to unique social, economic, and political factors in the state that have created demands for labor in these service areas.

Although the census data analysis shows that Florida has relatively low staffing levels, the data cannot be used to determine whether Florida has the appropriate level of staff. The census data analysis cannot answer the question of whether Florida's government staffing levels are too high or too low in any area. Assessing whether staffing levels are appropriate requires a detailed analysis of efficiency that is dependent on more specific information about performance, staffing, and costs.

Through its performance-based program budgeting (PB²) efforts, Florida is in the forefront in bringing performance measurement information into the budget process to make funding decisions. The ability to assess the reasonableness of state agency staffing levels is particularly critical under the PB² initiative. However, one weakness in the current initiative is that prior to 1998, agencies were not required to develop measures for administrative and support activities. Without this information, a large portion of state activities and costs are excluded from the benefits of performance budgeting.

At present, decisions concerning staffing levels suffer from a general lack of pertinent information. The state's major sources for staffing information, the personnel classification system and the personnel information system, do not currently provide the type of information needed to accurately and uniformly assess staffing. Florida's Career Service personnel classification system is too complex and it excludes some state personnel, primarily members of the State University

Census Data Analysis Cannot Answer the Question of Whether Florida's Government Staffing Levels Are Too High or Too Low in Any Area

¹ According to Glenn Roberstson, Budget Director during Governor Graham's administration, attempts to formalize this policy were unsuccessful.

² The U.S. Census Bureau computes the statistic, full-time equivalent employee, to control for the variation in full-time and part-time workers. This statistic is calculated by dividing the "part-time hours paid" by the standard number of hours for full-time employees and then adding the resulting quotient to the number of full-time employees.

System. The state's personnel information system, COPES, was not designed to provide staffing information such as levels in administrative, supervisory, or support functions. Moreover, the state's accounting system does not collect costs by PB² programs or by activity.

The state is in the process of redesigning all of these systems. In order for the new systems to be of optimal use for decision-making, the systems will need to provide reliable personnel and cost information that is compatible with PB².

PB² provides an opportunity to develop benchmarks and staffing ratios that can be used to compare staffing for certain key functions across programs and agencies. Employee-related statistics such as benchmarks and staffing ratios and program-based cost information will help the Legislature identify programs and processes for more critical review. More precise methods can then be used to analyze how well resources are being used and to identify reengineering opportunities. These methods include activity-based costing, linear programming, and data envelopment analysis.

Recommendations

- The Governor's Office should continue to work with agencies to develop measures for administrative and support activities in their performance-based budgets. A subsequent OPPAGA report will provide a basis for these measures.
- The new personnel classification and compensation system needs to be completed as soon as possible and incorporated into the design of the Florida Financial Management Information System (FFMIS).
- The Legislature needs to ensure that FFMIS is designed in a manner that will provide the type of staffing and cost information needed to assess whether state agency staffing levels are appropriate.
- In order for policymakers and agency managers to make reliable and uniform staffing decisions, data is needed on the total number of FTEs in state government. While existing exemptions to participating in the system may be appropriate, the State University System should be responsible for reporting FTEs according to standard, broad classification categories.

Chapter 1: Introduction

Purpose

OPPAGA conducted this review at the direction of the Joint Legislative Auditing Committee. This review assessed methods to analyze state and local government staffing levels in Florida. The specific objectives of the review were to

- compare Florida's state agency staffing levels to staffing levels of other states;
- identify factors influencing those staffing levels;
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- identify methods that Florida could use to more closely evaluate the use of staffing resources.

OPPAGA will issue a second report in 1999 that examines the resources (staffing and funding) allocated to administrative functions in state agencies. The report will identify potential staffing and efficiency ratios and options for evaluating staff and costs.

Background

The size of government is an important policy issue at the federal level and in many states, including Florida. Public employment is part of the service-producing sector, which is the largest and fastest growing sector of the U.S. economy. The number of state employees in Florida increased at almost twice the rate of the state's population between 1987 and 1995. (See Exhibit 1.)

The size of government has led some policymakers at the federal level and in many states to question whether government has too many employees. A relatively large number of employees generally indicates a large government. A recent survey of public attitudes found that many felt that state governments are too big and bureaucratic to be effective.

				Annualized
			Percentage	Percentage
	1987	1995	Change	Change
State				
Population	11,675,904	14,184,155	108.91	2.69
State				
Employees	125,983	174,717	120.89	4.84

Exhibit 1 Rate of Change of Florida State Employment and State Population, 1987 and 1995

Source: OPPAGA analysis of U.S. Census Bureau data

Factors to Consider When Comparing Staffing Levels Across States **Variation in Service Delivery and Financing Methods**. In comparing the relative size of government across the states, such comparisons should take into account the wide variation that exists in how states deliver and finance services.¹ Because of these wide variations, employee counts should be viewed as measures of inputs of labor, not outputs of services.

Contracting Out. One factor that can substantially affect state employee counts is the extent to which a state contracts for services with the private sector. Two states that spend about the same to acquire a certain level of service can differ substantially in employee counts if one contracts with a private firm to provide the service and the other provides the service in-house. This factor deserves strong consideration as many states look increasingly to privatization as a cost containment method. For example, the Texas Department of Transportation increased the number of contracts issued by approximately 1,000% between 1988 and 1994.

Local Employees Paid from State Funds. Furthermore, the method for financing employee salaries can also affect employee counts. This is particularly true for public education. Although public school employees are considered local government employees, many states provide all or a portion of the funding for public school employees' salaries. For example, the U.S. Census Bureau categorizes public school employees in Florida as local government employees, yet the state provides most of the funding for school district employees' salaries.

¹ See page 9 for a discussion of an example of how changes in service delivery have affected staffing in Florida's Department of Education.

Federal Programs Affect State Staffing Levels. A state's employee counts are also affected by federal requirements and funding. For example, in Florida the federal government covers the full cost of making disability determinations for two Social Security programs, yet disability determination staff are counted as state employees. In 1997-98 Florida received \$10.8 billion in federal funds for a variety of state functions including transportation, health care, and education. In other situations, federal funds have diminished, but the pattern of state and local governments performing certain levels of services had already been established.

Variation in Services Provided by Local Governments. Another factor that can affect state employee counts is the extent to which a state delegates services to its local governments. Government services are provided and funded through a complex structure made up of numerous public bodies and agencies. Moreover, legislative provisions for school district and special district governments are diverse. Where one state may deliver and finance a service through a local government, another state may use state employees to provide the service. For example, although school systems in most states are part of the local government structure, there are four states with state-dependent public school systems.

Florida has historically taken steps to limit the number of state employees. During the mid-1980s, for example, the Governor's Office established an informal policy to limit the size of state government to 1% of the state's population.² In addition, lawmakers and agency managers have initiated a series of reforms since the early 1990s to address issues of efficiency and effectiveness in government. These reforms include adopting a performance-based budgeting system and redesigning the state's personnel classification and information systems.

² According to Glenn Roberstson, Budget Director during Governor Graham's administration, attempts to formalize this policy were unsuccessful.

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Chapter 2: Staffing Levels

Purpose

Number of Public Sector Employees Is a Frequently Used Indication of the Size of Government Although there is no agreement on the best size of government, one frequently used indicator of the relative size of government is the number of public sector employees. The U.S. Census Bureau reports the number of full-time equivalent (FTE) public sector employees on an annual basis.³ To control for differences in state population size, we used the U.S. Census Bureau data to compute a ratio of the number of FTEs in a state per 10,000 population. We then compared Florida's ratios to the average ratios for the other nine most populous states in 1995 to determine the relative size of Florida government.⁴

In order to provide a more complete review of the size of Florida's government, we analyzed the ratios for both state and local government. We included local government employees in the analysis because of the variation in how states deliver services and to capture the total government workforce. For example, one state may deliver services through local governments while another state provides the same service through state agencies.

In comparing the relative size of government, several limitations should be noted. There is wide variation in how states deliver and finance services. States provide and fund services through a complex structure of numerous public bodies and agencies. One factor that can substantially affect state employee counts is the extent to which a state contracts for services with the private sector. The method for financing employee salaries can also affect employee counts, as can federal funding requirements. Moreover, the extent to which a state relies on local governments to provide services should also be considered.

³ We used data from the 1995 public employment survey conducted by the U.S. Bureau of the Census, Government Finance and Employment. The employment survey is a measure of the number of public employees at a point in time (i.e., October) according to a detailed cross-classification by function and type of employment. The annual surveys include all state governments and a sample of approximately one in four local governments. As a result, the local government statistics are estimates subject to sampling variation. The U.S. Census Bureau computes the statistic, full-time equivalent employee, to control for the variation in full-time and part-time workers. This statistic is calculated by dividing the "part-time hours paid" by the standard number of hours for full-time employees and then adding the resulting quotient to the number of full-time employees.

⁴ The comparison states used in our analysis are Georgia, New Jersey, Michigan, Texas, New York, Ohio, Pennsylvania, Illinois, and California.

State Staffing Levels

Florida Ranks Near the Bottom in Per Capita State Employees Among the Most Populous States Florida's state employment level is low compared to other states. The U.S. Census Bureau data shows that Florida ranked forty-eighth among the states in 1995 in the number of FTEs. Florida had 123.2 FTEs per 10,000 population in 1995 compared to the national average of 151.4 FTEs. Given that Florida is the fourth largest state in terms of population, a relevant comparison group for Florida is the 10 most populous states. Exhibit 2 shows that Florida ranked relatively low (eighth) among the 10 most populous states in 1995. The average ratio for the nine other most populous states was 131 FTEs per 10,000 population, which is 6% higher than Florida's ratio of 123.2 FTEs.

Exhibit 2 State Employee Staffing Levels Ranking of the 10 Most Populous States - 1995



Source: OPPAGA analysis of U.S. Census Bureau 1995 public employment survey

Staffing Levels Can Be Compared Within Government Functions To better understand the results of the ratio comparison, we also examined employment levels by government function. This type of analysis identifies the functions that have the highest demand for government labor and can be used to investigate how these demands have been affected by specific social and economic characteristics in a state. The focus of our review is to identify and explain functions where Florida has a higher than average ratio of FTEs. For presentation purposes, we collapsed the 22 categories used by the U.S. Census Bureau into seven major functional categories.⁵ Given the variation in state organization structures and service delivery modalities, these functional categories provide a means for comparison across states. The ratios for the functional categories do not correlate to staffing ratios for state agencies because functions often cut across organizational structures. For example, some functions within the Department of Environmental Protection are captured under the natural resources function and some are captured under the health and social services function.

Florida Is Comparable in Most Areas to the Average of the Other Nine States Exhibit 3 illustrates how Florida's state staffing levels compare to the average of the other nine most populous states in the seven major functional categories. The analysis shows Florida is comparable in the areas of administration, health and social services, transportation, and natural resources.





Source: OPPAGA analysis of U.S. Census Bureau 1995 public employment survey

⁵ The seven major functional categories are administration, public safety and justice, health and social services, education, transportation, natural resources, and other/unallocable. The other/unallocable category is comprised of functions such as libraries, utilities and transit, and housing and community development. For a complete description of how we collapsed the U.S. Census Bureau categories into seven functional categories, see Appendix 1.

Florida's Staffing Level Is Higher in Public Safety and Justice Services	Florida's government staffing is noticeably higher than the average of other populous states in one area—public safety and justice services. Florida's staffing ratio in the public safety and justice category is 44% higher than the average of the other nine states, 33 FTEs compared to 22.9 FTEs. This broad category includes activities related to corrections, judicial and legal services, police protection, and fire protection.
Florida's Staffing Level Is Lower in Education Services	In comparison, Florida's staffing ratio in the education category is 34% lower than the average for the other nine states— 29.8 FTEs compared to 45.4 FTEs. Although this analysis focuses on categories where Florida is higher than average, it is important to also discuss the education category because it contains the largest number of FTEs of any category. State agency staffing for education services includes staff in the State University System and the Department of Education. However, comparisons of per capita staffing levels among states should not be used to make conclusions about whether Florida has too many or too few employees in any program area. State staffing levels are affected by many factors.

Factors Affecting State Staffing Levels

Demands for Services. Staffing levels are affected by service demands originating from the social and economic characteristics of the population and policy preferences of government. Census data on FTEs by government function are indicators of a state's demands for labor in the public sector and the dimensions of its government employment. For example, a 1994 study of Georgia's public staffing levels found that the demand for government-produced services drives up public employment in four specific services in that state-health, corrections, elementary and secondary education, and local hospitals.⁶ The study attributes Georgia's higher-than-average employment-to-population ratio to employment in these four areas.

⁶ Lawrence R. Hepburn, Public Employees in Georgia How Many Is Too Many? Carl Vinson Institute of Government, Athens: The University of Georgia Press, 1994.

Florida Has High Demands for Staffing in Public Safety and Justice

Factors Affecting Florida's Public Safety and Justice **Staffing.** As shown in Exhibit 3, Florida is above the average of the other states in the public safety and justice service The relatively higher ratio of FTEs stems from category. demands created by certain social, economic, and political conditions in the state. Florida's violent crime rate was the highest in the nation in 1990 and in 1995. Moreover, the inmate population in Florida has almost doubled in the last 10 years. Demand is also increased by tougher prison sentencing policies that have been adopted in recent years. For example, for offenses committed after October 1, 1995, inmates are required to serve a minimum of 85% of their sentences. The average percentage of sentences served by inmates released in June 1997 was 71%, compared to 34% in 1992. These types of policy changes have increased demand in both the judicial and corrections systems, which have tended to increase government staffing in these areas.

Factors Affecting Education Staffing. As shown in Exhibit 3, Florida is lower than the average of the other states in staffing for education services. One factor affecting the staff ratio was the 1994 reorganization of the Department of Education to reduce its size and to transfer decision-making authority and functions to the local level.⁷

As a result of this effort, department staff positions decreased 633.5, from 1,548.5 in Fiscal Year 1994-95 to 915 in Fiscal Year 1995-96. About half (330.5) of these positions were transferred to other agencies. The remaining positions were eliminated due to downsizing (132.5), decentralizing services (78), and eliminating contracted positions (92.5). In addition, the department significantly changed how it used its resources. Between Fiscal Years 1994-95 and 1995-96, the department increased expenditures for purchased services by \$4 million and decreased expenditures for personnel by \$4 million. The department's total decrease in expenditures between Fiscal Years 1994-95 and 1995-96 was approximately \$300,000.

Florida's Relatively Low Staffing for Education Reflects Several Factors

Department of Education Has Reduced Number of Positions

⁷ A Review of the Department of Education's Use of Resources, OPPAGA Report No. 96-65, March 1997.

Florida's Higher Education System Excludes Community College Employees A second factor influencing the state employment ratio is the structure of Florida's postsecondary education system. With 28 community colleges and 10 universities, Florida has designed a system that makes its community colleges the main access point to higher education. (The U.S. Census Bureau counts community college employees in Florida as local government employees.) According to a Board of Regents (BOR) administrator, this unique design results in Florida having fewer students in the State University System than other states. The relatively low university system student population is a factor in Florida staffing levels for higher education.

A third factor that may indirectly affect the state employment ratio is the lower demand for public school services. Florida has the lowest percentage of school-age children compared to the other nine most populous states, which reduces the need for government staffing in this policy area.

Local Government Staffing

Since each state allocates responsibilities differently between state and local governments, some portion of the workforce could be overlooked unless employment data for both state and local governments are included in the analysis.⁸ In Florida, local government employees comprise 75% of all public employees in the state. Examining local government staffing ratios also helps determine to what extent, if at all, the state has delegated responsibilities to its local governments. For example, a similar study in Georgia showed that local hospital jobs were the major reason why Georgia's public employment exceeded the national average in 1991. To assess local government staffing in Florida, we examined both local government staffing and state-plus-local staffing levels.

Local Government Services and Funding. Florida's local governments deliver a variety of services including hospitals, police and fire protection, recreation and parks, public schools, and sewage and solid waste. Florida's local governments include counties, school districts, municipalities, and independent special districts. The Florida Constitution grants

⁸ Lawrence R. Hepburn, Public Employees in Georgia How Many Is Too Many? Carl Vinson Institute of Government, Athens: The University of Georgia Press, 1994.

local governments broad home rule powers to assess fees, service charges, and ad valorem taxes within certain limits. In addition, federal and state revenues serve as significant sources of revenues for local governments, although these sources have steadily declined as a percentage of total local government revenues since the early 1980s. Factors currently influencing the revenues and expenditures of local governments include increases in the number of federal and state mandates on local governments and the need to expand services to accommodate growth.

Although somewhat higher than the state-only ranking, Florida still ranks relatively low overall when local government FTEs are considered (see Exhibit 4). In 1995, Florida ranked seventh among the 10 most populous states in its local government staffing ratio. Florida had a staffing ratio of 376.6 FTEs compared to the average of the other nine states of 394.8 FTEs.

Exhibit 4 Local Government Employee Levels Ranking of 10 Most Populous States - 1995



Source: OPPAGA analysis of U.S. Census Bureau 1995 public employment survey

Florida continues to rank relatively low when local and state FTEs are considered together. As shown in Exhibit 5, in 1995, Florida ranked sixth in the number of state-plus-local FTEs among the 10 most populous states. Florida had a ratio of 499.8 FTEs per 10,000 population in 1995 compared to the average of 525.8 FTEs for the nine other states, which is 5% above Florida's ratio.

Florida Government Employment Ranks Relatively Low When Local Government FTEs Are Considered



Exhibit 5 State-Plus-Local Government Staffing Levels Panking of 10 Most Populous States - 1995

Source: OPPAGA analysis of U.S. Census Bureau 1995 public employment survey

Florida's State and Local Government Staffing Levels Are Comparable

Higher in Public Safety and Justice Services

Higher in Natural Resources Services When local FTE levels are compared to state FTE levels, the differences are small. As a result, there is no indication that Florida's relatively low overall rank of the state FTEs is maintained at the expense of local governments. Florida's local FTEs by government function and its state-plus-local government FTEs are higher than the nine-state average primarily in two areas: public safety and justice, and natural resources.

As with the state FTE analysis, Florida's local government employee ratio is higher than the average of the other nine states, 61.5 compared to the average ratio of 57.8. Florida's state-plus-local ratio is also higher than the average, 94.5 FTEs compared to 80.7 FTEs for the other nine states.

When local FTEs are examined, Florida shows higher-thanaverage staffing in the natural resources service area. This category includes services related to conservation, promotion and development of natural resources, and parks and recreation services. Exhibit 6 shows that Florida has a local government employee staffing ratio of 14 compared to the nine-state average of 9 FTEs. Exhibit 7 shows that Florida's state-pluslocal government ratio is 19.9 compared to the nine-state average of 15 FTEs. Lower in Education Services Including local government employment with state staffing brings Florida's education staffing closer to the average of the other states. Florida's local government employee ratio is 193.4 compared to the other nine states' average of 211.4. The stateplus-local government ratio is also lower, 223.2 compared to 256.8 average for the other nine states.

> Again, it is important that comparisons of per capita government staffing levels among states not be used to make conclusions about whether Florida has too few or too many public employees. As when analyzing state government staffing, local government staffing levels are affected by many factors.

Exhibit 6 Local Government Employee Staffing Levels by Government Service - 1995 Florida Compared to the Average of the Other Nine Most Populous States



Source: OPPAGA analysis of U.S. Census Bureau 1995 public employment survey



Exhibit 7 State-Plus-Local Government Employee Staffing Levels By Government Service - 1995 Jorida Compared to the Average of the Other Nine Most Populous States

Source: OPPAGA analysis of U.S. Census Bureau 1995 public employment survey

Factors Affecting Local Government Staffing

Demands for Public Safety and Justice Services Increase Local Government Staffing in These Areas Many of the same factors identified under the state FTE section also impact demand for local public safety and justice services. The higher-than-average FTE ratio stems from the states' emphasis on public safety and justice services. This emphasis has also increased the need for staffing in local government corrections and judicial activities. Florida's state government and local governments combined place a relatively higher spending priority on corrections, fire protection, and police protection compared to other state and local governments in the U.S.⁹ This higher spending priority may impact the level of FTEs in the public safety and justice category. Another factor

⁹ Features of Florida's Local Government Finances, Florida Legislative Committee on Intergovernmental Relations, 97-1, February, 1997.

that may increase the number of local FTEs is the cost associated with the state court system. Most of the costs for the state courts, such as courthouses and administrative support are paid by local governments.

Florida's higher-than-average level of local government FTEs in the natural resources category reflects consumer demands for natural resources/parks and recreation services. Factors such as growth, tourism, and abundant natural resources help to create a demand for these services. A 1997 Florida Legislative Committee on Intergovernmental Relations report states that Florida's state government and local governments place a relatively higher spending priority than all other state and local governments in the U.S. combined on natural resources and parks and recreation services.¹⁰

Florida is among the fastest growing states in the nation. Population growth is directly linked to land development and use, use of natural resources, and demand for services related to these areas. Furthermore, Florida's largest industry is tourism, which is dependent on the state's abundant natural resources, and numerous parks and recreation areas.

Local government education services include activities related to public elementary and secondary schools and the community college system. Demand for education services is a function of the population to be educated. The lower demand for public school services in Florida is linked to its proportionally smaller school aged population. Exhibit 8 shows that in 1996, Florida had the lowest percentage of school age children (5-17 age group) compared to the other nine states.

Growth, Tourism, Abundant Natural Resources Create Demand for Local Government Staffing

Lower Local Government Education Staffing Is Linked to Proportionally Smaller School Age Population



Thus, Florida's government staffing levels, when compared to other states, are relatively low and can be attributed to the characteristics of Florida's population and environment.

Chapter 3:

Approaches for Assessing Appropriateness of Staffing Levels

Introduction

U.S. Census Bureau Information by Itself Is Not Particularly Useful in Determining Whether Florida's State Agencies Have Appropriate Staffing Levels The U.S. Census Bureau data analysis provides useful indicators of how Florida's staffing levels compare to other states. It can thus help identify areas where Florida's staffing is significantly higher or lower than other states. However, the U.S. Census Bureau information by itself is not particularly useful in determining whether Florida's state agencies have *appropriate* staffing levels. Assessing the appropriateness of staffing levels requires an examination of efficiency and effectiveness which is dependent on information must be reliable and be able to be applied uniformly across programs and agencies.

Developing a sound approach to analyzing Florida government staffing levels will require improvements to several state data systems. Although comprehensive personnel data is available through Florida's current systems, it cannot be uniformly applied across agencies or consistently integrated with budget data. The absence of pertinent and reliable historical budget and performance data makes it difficult to examine staffing levels. Moreover, two key systems, Florida's personnel classification system and personnel information system, do not provide the type of information needed for staffing analyses.

A Staffing Analysis Approach

By looking at how the private sector has traditionally approached questions of efficiency, we identified several types of quantitative and qualitative approaches to analyzing staffing. From these approaches, we developed the following approach (Exhibit 11) which illustrates the three levels of analyses described in this report and the types of data needed for each level. **Tier 1 Analysis:** This level is a broad, state-to-state comparison using employee staffing levels as the basis for comparison. It is based on U.S. Census Bureau data and can be used for limited purposes of comparing employee data across states by government function. It should not be used to conclude whether Florida has too many or too few employees in any program area, but can identify areas where more in-depth analysis may be suggested.

Tier 2 Analysis: This level of analysis addresses agency-to-agency comparisons. This type of analysis depends on statewide information about program performance, staffing, and cost. It can be used to establish staffing ratios and benchmarks for comparing across programs and agencies. OPPAGA's second report, to be issued in 1999, will use this level of analysis to establish benchmarks and staffing ratios for administrative functions in state agencies. This level of analysis can identify potential areas of under- or over-staffing that should be studied with precise analysis.

Tier 3 Analysis: This level of analysis uses more precise methods that are applied to areas targeted for more critical review to assess the staffing needed to perform specific tasks and maximize the efficient use of resources.



Exhibit 11 Staffing Analysis Methods

Source: OPPAGA

Performance Information

Performance-Based	Florida is in the forefront in bringing performance measurement
Program Budgeting (PB ²)	information into the budget process to make funding and staffing decisions. ¹¹ Until recent budgeting reforms, most agencies had not maintained information demonstrating the effectiveness of their programs and the efficiency of their operations. The absence of pertinent and reliable historical budget and performance data has made it difficult to address the need to reduce spending where possible. The 1994 Government Performance and Accountability Act established performance-based program budgeting. PB ² will allow policymakers and managers to determine the resources needed to achieve intended outcomes, analyze employee-related statistics, and ensure that staffing reductions are not made at the expense of outcomes.
Assessing Staffing Needs Is Critical Under PB ²	The ability to assess the reasonableness of state agency staffing levels is critical under the PB^2 initiative. The Legislature will hold agencies accountable for attaining specified levels of performance, but will not have as many traditional controls over agency spending and staffing levels. The Legislature provides agencies operating under PB^2 with lump sum appropriations, giving agencies greater flexibility in allocating money, rather than specific line-item appropriations for agency salaries and benefits, expenses, and operating capital outlay. While this flexibility is beneficial, the budget process must also provide a mechanism for assessing and justifying staffing levels. Several improvements are needed in order to make these staffing determinations.

Actions Needed to Improve Staffing Information

Agency-to-Agency Comparisons (Tier 2) The ability to analyze and compare staffing levels is hindered by a lack of pertinent information. Two key systems, Florida's personnel classification system and personnel information system lack integration, are incomplete and do not provide the type of information needed to readily analyze agency and program level staffing. However, Florida is in the process of redesigning both systems.

¹¹ Performance-Based Program Budgeting in Context: History and Comparison, OPPAGA Report No. 96-77A, April 1997.

Redesign of Florida's Personnel Classification System Needs to Be Completed in a Timely Manner **Personnel Classification System.** Florida's Career Service personnel system is complex, containing 1,513 job classes and 86 different pay ranges; its basic structure lacks uniformity. It is difficult to distinguish between classification levels within an occupational group, such as the distinction between supervisory and support positions. This distinction is important to determine the ratios of supervisory and support personnel to line staff. The Career Service personnel system also excludes some state personnel, primarily the State University System personnel, which make up 19% of the state's workforce. Given these limitations, the system is not a reliable source for obtaining uniform staffing information.

Florida is currently in the process of redesigning its personnel classification system. In 1994, the Legislature gave the Department of Transportation (DOT) the authority to test a model career service classification and compensation system. In 1997, the Legislature directed the Department of Management Services (DMS) to facilitate the statewide planning of the career service broadbanding compensation and classification system. A DMS task force is currently working with state agency personnel officers to develop a new system. However, two previous attempts to adopt a statewide system have been unsuccessful.¹² Moreover, the task force has not reached consensus on how the new system should be structured and the planned deadline is after the planned implementation of the new personnel information system.

Personnel Management Information System. As currently designed, the state's personnel information system is a major impediment to developing useful statewide staffing information. The current system, the Cooperative Personnel Employment Subsystem (COPES), provides statewide data on employee salaries, positions, and vacancies for the Career Service personnel system. However, this system was not designed to provide staffing information such as numbers of staff in administrative, supervisory, or support functions. Moreover, it is almost prohibitively time-consuming to gather the data to compare similar positions because agencies use different coding systems. This requires a manual, line-by-line review of each position and discussions with agency personnel staff. Important

¹²First, DMS determined that the broadbanding model developed by DOT was not suitable for statewide implementation. Second, agency personnel directors did not support the alternative proposed by DMS.

data designating whether a position is supervisory is optional and often not recorded in the system. Therefore, COPES cannot be readily used to determine the ratio of positions in those types of functions to line staff or to establish benchmarks for these functions across agencies.

Florida is currently in the process of reengineering its personnel and payroll information systems through a joint project involving the Executive Office of the Governor, the Department of Management Services, and the Department of Banking and Finance. The Florida Financial Management Information System (FFMIS) will be a unified information system that will provide personnel, management, and accounting support for state decision-makers. The design of the new system is scheduled to begin in September 1998 and implementation on a pilot basis is scheduled to end in the year 2000.¹³ Although one of the purposes of the new system is to provide better management information, the specific types of management reports will be determined during the design phase.

Administrative Component of PB². In addition, the PB² requirements need to be revised to include measures for administrative functions. The 1994 PB² legislation requires that each agency provide the Executive Office of the Governor (EOG) with a list of programs and performance measures for each program. Although the 1994 PB² legislation does not specifically exclude administrative functions, until recently the EOG did not require agencies to include their administrative functions in the PB² process. In response to 1998 legislation, the EOG established a workgroup to develop performance measures for administrative and support functions. Measures for administrative functions should include benchmarks and ratios related to staffing. OPPAGA's second report will compare administrative functions and develop potential benchmarks.

Benchmarks and Staffing Ratios. Benchmarking is a structured approach for identifying the best practices from industry and government and comparing and adapting them to the organization's operations. Benchmarking can range from comparing output per employee over time to comparing more global measures of productivity or efficiency across an industry.

Reengineered Personnel Information System Will Provide Better Management Information

Agencies Should Include Administrative Functions in PB²

Agencies Should Develop Benchmarks and Staffing Ratios

¹³The FFMIS will contain five subsystems: the Planning and Budgeting System, the Florida Accounting Information Resource, Cash Management Subsystem, Purchasing System, and the Cooperative Personnel Employment Subsystem.

Staffing ratios can be used to compare the resources devoted to management and support functions to direct program staff. These approaches can assist policymakers and managers in identifying areas where staffing may be higher or lower when compared to an average or a standard. Examples of staffing ratios used by the public sector include number of students per teacher, number of welfare clients per caseworker, and staffing for highway maintenance per mile of road.

Under traditional budgetary practices, agencies are not required to include standards or benchmarks to support existing FTEs in their budget requests. In contrast, many private industries have staffing standards for their activities. This is especially true for highly similar and routine activities such as manufacturing and administrative functions. These types of standards were developed through the use of methods involving careful study, observation, and comparative analysis. Because private companies and consulting firms that market benchmarks often consider their staffing standards proprietary, private sector standards are difficult for state and local governments to obtain. The state will have to undertake similar studies in order to develop the same types of staffing standards for comparable types of positions.

Actions Needed to Improve Cost Information

Agencies Should Develop Information on Staffing Costs Accounting Information System. Florida also needs better information on the costs of providing services and achieving desired outputs and outcomes. In many programs, staffing represents the largest expenditure because most agencies are labor intensive. Information on staff costs is necessary to adequately estimate the work to be performed or the outputs to be produced. It would also be useful to know how an agency determines its administrative and operating costs.

A major barrier to the development of accurate and reliable cost data is the state's accounting information system, Florida Accounting Information Resource (FLAIR).¹⁴ FLAIR does not account for costs by the types of programs the Legislature establishes under PB². The system was also not designed to provide staffing cost information.

¹⁴The Legislature changed the name of the State Automated Management Accounting System (SAMAS) to FLAIR in 1997.

FFMIS Needs to
Be Linked to PB2The state is in the process of improving its cost accounting
system as part of its development of the FFMIS. This new
system needs to be linked to PB². Knowing the cost of agency
programs and activities, including its human resources costs,
will help the Legislature consider performance in relation to
budgeting. This information will enable the state to make
"make versus buy" decisions and compare its costs of providing
services to those of similar organizations and private sector
providers. Cost accounting information managed electronically
is critical for accurate and reliable measures of the cost to
achieve desired outputs and outcomes.Cost information will also enable the state to do more detailed
analyses of work processes using techniques such as business

analyses of work processes using techniques such as business process reengineering, activity-based costing, and linear programming. These types of quantitative methods can be helpful in determining why a program is not producing desired results and for identifying ways to improve efficiency.

More Precise Staffing Analysis Techniques

Process-Specific	Employee-related statistics such as benchmarks and ratios and
Analysis (Tier 3)	program-based cost information will help the Legislature and agency managers identify programs and processes for more critical analysis. Selection criteria could include areas that are clearly underperforming or are overstaffed compared to similar agency functions. Once a program is targeted for further review, more precise techniques can be used to analyze whether resources are being used efficiently and to identify opportunities for streamlining operations and staffing.
Techniques Are Not Widely Used in State Agencies	The techniques described below are not currently widely used in state agencies because they can be time-consuming, resource intensive, and require good data. However, a leading expert on government budgeting and management argues that most government activities can be measured by employing varying methodologies. ¹⁵ He cites the time-reporting systems in effect for engineers, architects, lawyers, researchers, and management consultants in the private and public sectors as evidence of applicability in the public sector.

¹⁵Donald Axelrod, *Budgeting For Modern Government*, 2nd edition, New York: St. Martin Press, Inc., 1995.

We conducted a literature review and consulted experts in the use of analytic techniques to identify some methods for addressing staffing and general resource allocation questions. The techniques described below include both qualitative and quantitative methods that vary in terms of complexity and applicability. The appropriate use of these techniques is dependent on the specific issues or questions that need to be addressed.

Process Analysis techniques form the basis for other techniques and are essential in using higher-level mathematical techniques. Process analysis involves a step-by-step analysis of work or business processes with the goal of simplifying and improving the process. Both large and small processes can be included in the analysis. A process analysis can be accomplished a number of ways including flowcharting, process mapping, and process inventorying. Process analysis involves identifying the starting and ending points, key inputs and outputs, and the key customers and suppliers of the process. This analysis forms the basis for process reengineering.

Business process reengineering (BPR) provides the framework for the systematic rethinking and redesign of business core processes to bring about dramatic improvements in performance, such as cost, quality, and speed.^{16,17} BPR began as a private sector technique to help organizations improve customer service, cut costs, and become more competitive. BPR builds from several roots including strategic planning, quality management, participative management, and project management.¹⁸ The U.S. General Accounting Office issued a BPR guide in 1997 that identifies nine major issues that are considered to be the stepping stones to successful BPR implementation.¹⁹ These issues cover a wide range of activities, such as identifying customer needs, reassessing strategic goals, and successfully implementing new processes. The BPR process starts with a high level assessment of the organization's mission, goals, and customer needs. After the high-level

Other Techniques

Process Analysis

Is Basis for All

BPR Results in Radical Changes

¹⁶M. Hammer and J. Champy, *Reengineering the Corporation*, New York: Harper Collins Publishers, 1993.

¹⁷A business process is a specific ordering of work activities across time and place, with a beginning, end, and clearly defined inputs and outputs that deliver value to customers.

¹⁸Sandra Hale, A. C. Hyde, editors, "Reengineering in the Public Sector," *Public Productivity and Management Review*, Vol. 18. No. 2, Winter 1994, 127-131.

¹⁹United States General Accounting Office, Business Process Reengineering Guide, Version 3, May 1997.

assessments, BPR includes a step-by-step analysis of core work processes.

Risks Associated With BPR	BPR promises radical changes in performance (gains of 80% to 85%). However, it is considered high-risk because it often requires additional funding and can be difficult and time consuming to implement. Factors that can hinder successful implementation of BPR are the lack of data about performance and costs, the lack of criteria for judging the value of processes, and the lack of workforce buy-in to change. ²⁰ Experts estimate that implementing BPR requires a minimum timeframe of 9 to 18 months. To determine an organization's readiness to undertake reengineering and to increase the likelihood of success, the U.S General Services Administration (GSA) recommends that organizations conduct a BPR readiness assessment.
Other Types of Reengineering	Organizations that decide not to pursue BPR, but have a need for organizational change, may prefer an alternative strategy such as Business Process Improvement (BPI) or Total Quality Management (TQM). These strategies are less radical process improvement techniques and involve more incremental and gradual change. For example, BPI is considered to be moderate-to-low risk and can help realize moderate performance gains. It can be implemented in less than one year and can impact a number of sub-processes. TQM is considered to be low-risk, can be implemented within several months, and uses existing resources. However, these techniques do not usually result in dramatic improvements to performance.
Several State Agencies Have Used Reengineering to Restructure Operations	Several state agencies have used reengineering to restructure their operations and improve efficiency. For example, Florida's Department of Corrections (DOC) used TQM principles to establish its quality improvement program, Correctional Quality Managerial Leadership. DOC has also established the Efficiency Through Innovation Program. The purpose of this program is to ensure the department uses good business practices and innovative techniques in order to maximize limited resources.
Queuing Models Have a Wide Range of Applications	Queuing Modeling is a mathematical technique used to study waiting lines and service processes. Waiting lines and service

²⁰William R. Phillips, Bonnie L. Brown, C. Morgan Kinghorn, Andrew C. West, Public Dollars, Common Sense: New Roles for Financial Managers, Coopers and Lybrand, 1997.

processes generally have three things in common: arrivals, servers, and the provision of service.²¹ Some typical examples of services with waiting lines include courts, drivers' license bureaus, health clinics, and tollbooths. Queuing models have a wide range of application in public policy.²² Models identify the consequences of various alternatives, but do not identify the "best" alternative. For example, in an analysis of toll bridge operations, a queuing model identifies the extent to which additional lanes will reduce driver wait time, but it does not identify the "best" requires a choice that may be made on the basis of fund availability or some other factor.

A 1986 project conducted by the Office of the Auditor General's Performance Audit Division (now OPPAGA) used a queuing model to examine the process used to issue drivers' licenses.²⁴ The queuing model simulated the activities of drivers' license offices to test the effectiveness of various means of improving office efficiency and reduce applicant-waiting time. The study found that changes in the operations of one of the offices could significantly reduce waiting time if the office implemented a block appointment system, reallocated its staff among work stations, and revised its procedures on which work station examiners should assist when not busy.

Continuing with the example of prisons, queuing modeling could be used to determine correctional officer scheduling in prisons. The objective would be to provide staff coverage that is sufficient to ensure public safety, yet at minimum payroll cost. Some of the variables to consider in developing the staff schedule include post patterns (level of officer staffing) and shifts.

Activity-Based Costing Measures Resource Consumption by Activity Activity-Based Costing (ABC) can be used to generate financial and operations information for improving processes and determining the appropriate budget and staffing for operations. It is a cost allocation method that assigns costs to activities as opposed to traditional allocation methods that

²¹Christopher K. McKenna, *Quantitative Methods For Public Decision Making*, New York: McGraw-Hill, 1980.

²² Edith Stokey and Richard Zeckhauser, A Primer for Policy Analysis, New York: W.W. Norton Company, Inc., 1978.

²³Christopher K. McKenna, *Quantitative Methods For Public Decision Making*, New York: McGraw-Hill, 1980.

²⁴Performance Audit of the Management of Driver Licensing Program Operations and Workload by the Department of Highway Safety and Motor Vehicles, Office of the Auditor General Report No. 10696, May 1986.

assign costs more broadly to products or services. The ABC analysis involves identifying the activities within each department and why each activity is done, how often and for whom the activity is performed, resources consumed in doing the activity, and what factors determine or drive the activity or resource. One of the main advantages of ABC is that it can be used to determine indirect costs more accurately than traditional allocation methods, which may hide or skew indirect costs. Moreover, ABC allows financial and performance information to be viewed by process or by organization.

Government entities can use ABC to improve efficiency and effectiveness by redesigning processes or applying process improvement techniques. A recent example is Iowa's use of ABC to analyze its Transportation Department paint crew operations. ABC costing was used to provide total activity costs and unit costs for the paint crews' major activities. This information was then used to determine ways to improve the efficiency and effectiveness of the activities including increasing revenues and timeliness.²⁵

Returning to our example of prisons, a potential application of ABC in Florida would be in a purchasing department of a prison. For a purchasing function, ABC identifies the costs associated with specific activities, such as processing purchase orders and updating files and with specific outputs. This information would allow prison managers to compare their costs to other organizations and target areas for cost reductions.

²⁵Mark D. Abrahams and Mary Noss Requely, "Activity Based Costing: Illustrations from the State of Iowa," *Government Finance Review*, April 1998.

Linear Programming Allocates Limited Resources Among Competing Uses **Linear Programming** is a mathematical programming technique for allocating limited resources among competing This technique measures the relative efficiency of an uses. organization, agency, or program. Unlike queuing models, which provide a description of alternative solutions to a problem, the purpose of linear programming is to find the best alternative.²⁶ Due to advances in data processing and information technology, linear programming is now widely used in industrial and military operations, financial services, and municipal governments. Linear programming can be used to solve a variety of problems that involve decisions regarding the allocation of limited resources. Examples of its use in the public sector include staff scheduling, school bus routing, and client contact scheduling.

Linear programming can also be used to develop standards against which one can compare an agency's actual performance.²⁷ Developing a standard consists of estimating the optimal level of performance, given the agency's technology and environmental conditions. Estimating the optimal level of performance requires knowledge about laws affecting the agency, resource constraints, technology used, and the rate at which agency activities achieve objectives.

We believe that there are several activities within state government that could be improved through the use of linear programming analysis. Linear programming is the most highly developed and widely used of the various operations research techniques. In prisons, an example of the use of linear programming would be in examining high-cost services, such as food service and health care. For food services, linear programming can specify a diet that meets nutritional requirements at a minimum total cost. For health care services, the technique could provide a means for minimizing cost in providing emergency medical services.

Data Envelopment Analysis Is Useful in Comparing Organizations Data Envelopment Analysis (DEA) is an analytical technique used to evaluate the performance of organizations and their operational processes. DEA is becoming an increasingly valuable tool in comparing similar organizations, particularly in the public sector. Organizational units analyzed in DEA are

²⁶Christopher K. McKenna, *Quantitative Methods For Public Decision Making*, New York: McGraw-Hill, 1980.

²⁷Gloria A. Grizzle, "Developing Standards for Interpreting Agency Performance: An Exploration of Three Models," *Public Administration Review*, March/April 1984, 128-133.

referred to as decision-making units (DMUs). A DMU can be a municipal organization, a program, a contracted provider, or an agency.²⁸ DEA has been used to make comparisons among schools, human service agencies, court systems, and health care providers.

The central purpose of DEA is to explain how each DMU is performing relative to others and how its performance can be improved. DEA provides insight into the relative efficiency of organizations and identifies organizations using best practices and organizations using poor practices. This allows management to know which units to focus on for improvement and to monitor improvements over time. DEA can also calculate the amount of resources that could be saved or the amount of additional output or outcome that could be produced through improved efficiency.

Although DEA is a powerful analytical tool, its greatest weakness is its complexity. Given its complexity and the number of variables that can be included in the analysis, DEA is highly susceptible to measurement error. Failure to include a valid input or output will bias the results so that some units will appear to be more efficient than they really are. DEA is also highly dependent on the availability of reliable data; all inputs and outputs have to specified and measured. These limitations stress the importance of planning and qualitative assessment throughout the analysis.

DEA would be useful in Florida for comparing multiple providers of a similar service. For example, the technique could be applied in comparing identical tasks within public and private prisons. Specific factors that could be compared to assist in decision-making include efficiency, quality, and effectiveness.

Performance measurement information will become increasing significant to Florida government and the Legislature in the coming years. Performance information has implications for budgeting, granting, contracting, and other resource allocation decisions. Policymakers and agency managers will need improved analytic tools to use performance information effectively. These tools range from simple comparisons such as the use of ratios to more powerful techniques such as DEA.

Summary

²⁸Ronald C. Nyhan and Lawrence L. Martin, "Performance Measurement and Multiple Provider Comparisons," Annual Meeting American Public Administration Society, July 1997, Philadelphia.

These analytic tools are dependent, to a large extent, on reliable performance data and information systems. As discussed previously in this report, the state's personnel and financial information systems are in the process of being redesigned. Improved data from these sources will be critical to conducting comparative analysis between state agencies. We believe that using these analytical tools can produce significant improvements in the operation of Florida government.

Chapter 4:

Conclusions and Recommendations

Florida's staffing levels rank relatively low when compared to other states. Moreover, the staffing levels for most types of government services tend to be comparable with other states. Florida's state agency staffing levels exceed other states' primarily in the public safety and justice services area. When local government full-time equivalent (FTE) positions are added to the analysis, Florida shows higher-than-average staffing levels in the natural resources services area.²⁹ These levels must be interpreted with caution because they are linked to unique social, economic, and political factors in the state that have created demands for labor in these service areas.

However, the U.S. Census Bureau data analysis should not be used to make conclusions about whether Florida's staffing levels are appropriate. The census data analysis cannot answer the question of whether Florida's government staffing levels are too high or too low in any area. Such assessments require an examination of individual program efficiency and effectiveness and is dependent on information about program performance, staffing, and cost.

The ability to assess state agency staffing is particularly critical under Florida's new budget reform initiative. Performancebased budgeting (PB^2) establishes performance measures and provides a mechanism for holding agencies accountable for outcomes. However, PB^2 needs to be expanded to include measures for administrative functions.

In order to develop good systems for analyzing agency staffing levels, Florida will require significant improvements in its personnel information systems. These systems will also need to be integrated with budget and accounting systems. The state's major sources that support staffing-related information, the personnel classification system and the personnel information

Census Data Analysis Cannot Answer the Question of Whether Florida's Government Staffing Levels Are Too High or Too Low in Any Area

²⁹The U.S. Census Bureau computes the statistic, full-time equivalent employee, to control for the variation in full-time and part-time workers. This statistic is calculated by dividing the "part-time hours paid" by the standard number of hours for full-time employees and then adding the resulting quotient to the number of full-time employees.

system, do not currently provide the type of information needed to accurately and uniformly assess staffing. Florida's Career Service personnel system is too complex and excludes some state personnel, primarily employees of the State University System (SUS) which comprise 19% of all state employees. The state's personnel information system was not designed to provide staffing information such as the number in administrative, support, and supervisory functions. Moreover, the state's accounting system does not collect cost information by PB² program or by activity. The state is in the process of redesigning all of these systems. In order for the new systems to be of optimal use in decision making, the systems will need to provide reliable and accurate personnel and cost information that is compatible with PB².

We recommend the following actions.

- The Governor's Office should continue to work with state agencies to develop measures for administrative and support activities in their performance-based budgets. The effort should include output measures such as staffing ratios and overhead ratios and should define both administrative and support activities to ensure comparability between agencies. OPPAGA's second report on staffing issues will provide a basis for such measures. Without this information, a large portion of state activities and costs will be excluded from the PB² process.
- The new personnel classification and compensation system needs to be developed and incorporated as part of the design of the Florida Financial Management Information System (FFMIS). The FFMIS design process is scheduled to begin in September. To ensure that the FFMIS includes the new personnel classification system, the Department of Management Services (DMS) and the state agency personnel directors need to establish a more timely deadline for the completion of the statewide personnel classification system. In establishing the deadline, DMS should consult with the FFMIS project coordinators. The Legislature should intervene in the event these agencies fail to establish an appropriate time frame for developing the new personnel system.

- The Legislature needs to ensure that the FFMIS is designed so that it will provide the type of staffing and cost information described in this report and envisioned under PB². Knowing the cost of agency programs and activities, including its human resources costs, is a major component to the success of Florida's PB² efforts. This type of information is also needed to support more precise staffing analysis techniques such as data envelopment analysis and linear programming.
- In order for policymakers and agency managers to make decisions about staffing levels, data is needed on the total FTEs in the state. Not all of Florida's state employees are currently required to be included in the new personnel classification system or the FFMIS. While the career service system exemptions may be appropriate, the SUS should be responsible for reporting FTEs according to standard, broad classification categories. Further study is needed to determine how the SUS could participate in the new personnel classification and information systems.

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Appendix

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Appendix A

U.S. Census Bureau Functional Categories

The following shows the specific public employment functions used by the U.S. Census Bureau that are included under the seven major categories used in the report.

Functional Category	Public Employment Functions
Administration	Financial Administration Central Administration
Public Safety and Justice	Corrections Judicial and Legal Police Protection – Officers Police Protection – Other Fire Protection
Health and Social Services	Hospitals Public Welfare Health Social Insurance Administration
Education	Higher Education – Other Higher Education – Instructional Elementary and Secondary Education – Other Elementary and Secondary Education – Instructional Other Education
Transportation	Highways
Natural Resources	Natural Resources Parks and Recreation
Other	Other and Unallocable (includes libraries and state liquor stores) Utilities and Transit Housing and Community Development

Source: OPPAGA's categorization of U.S. Census Bureau Information