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Using the Interfund Transfer as a Financing Tool: A Study of County Governments

Steve Modlin
Department of Political Science, Public Administration, and Philosophy
University of Southern Indiana, USA

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Abstract

Conventional budgeting and financing practices provide consistent levels of funding for public services that, at times, includes the use of the interfund transfer, especially as it relates to General Fund transfers out. There has been limited research concerning interfund transfers, especially funding amounts and specific service type funding, which provides insight into this indirect funding mechanism. This study examines the level of interfund transfers out of the General Fund among county governments in North Carolina. The study also examines the types of funds that act as receivables for the transfers. Initial findings indicate proper budgeting for interfund transfers with lower actual transfers during the fiscal year. Overall organization performance was found to influence transfers with higher levels of actual transfers occurring with increases in net position, overall total fund balances, assets, and a lower auditee risk designation. Findings also indicate more diversification among fund types with more accountants on staff and if the General Fund was more stable during the fiscal year. Implications of the study include the importance of proper budgeting and fund allocation and well-trained finance personnel in the area of governmental accounting.

Keywords: Interfund transfer, operational transfer, general fund, governmental accounting

Introduction

The local government budget process usually involves extensive strategic planning and takes place over a period of months or even more than

a year. Management teams try to acquire as many resources as possible to ensure organization goals and objectives are accomplished. Despite the high level of detailed planning, numerous fiscal year occurrences can have a substantial impact on any number of funds, but especially the General Fund. The General Fund is the largest continuously active fund that enables service provision. In many cases, some type of interfund transfer from the General Fund is necessary to subsidize services or activities that may have sustained, but limited funding during the budget ratification process. This study examines the factors that contribute to the amount of General Fund transfers-out among county governments in North Carolina. Findings indicate that an increased level of staff accountants influences the variety of fund types receiving transfers, while overall organizational performance has significant impacts on actual transfer levels as well as budgeted transfer amounts.

Motivation for the study is the sustained efforts for continued transparency among local government audit presentations. In this case, interfund transfers are somewhat of an enigma due to the numerous journal entries and fund usage. Among local government audits, initial references to transfers could be within the Management Discussion & Analysis (MD&A) and among the initial exhibits; however, specific details concerning transfers are most likely found in the note disclosures or *Notes to the Financial Statements* which can be rather lengthy with subject information not consistent with the type of activity. The Governmental Accounting Standards Board continues to propose standards that enhance audit comprehension and transparency (GASB 2019; GASB 2021). In this case, transfer information is especially important for stakeholders with potential investment interests. The information within the note disclosures can provide information that suggests whether the transfers are routine with sustained fund maintenance or if there are problem areas with some services.

This study contributes to the literature in numerous ways. First, there are few studies that address interfund transfers with none specifically focused on out-transfers nor the service areas that are funded through the transfers. Second, this study examines the impact of specific finance office personnel and how specific positions affect the amounts of transfers and the type of funds utilized. Third, this study examines links with previous audit findings and transfer activities. Interfund activity requires extensive accounting expertise, especially as it relates to audited transactions, thus the study attempts to determine if there could be recalcitrance concerning increased interfund usage due to previous irregularities. Fourth, the study indirectly emphasizes the importance of preparation among managers before and during the budget process in an effort to minimize the need for additional transfers. Finally, the study illustrates the importance of

governmental accounting expertise for both effective management of daily operations and resource accountability.

The study is organized as follows. The next section will discuss interfund transfers, uses, and impacts. Next, there will be a literature review and the development of three general hypotheses. The research design will be introduced with an overall model that specifies the predictors that will be tested against interfund transfer actuals, budgeted amounts, and types of funds that receive the transfers. The findings section includes a pairwise correlation and multivariate models that provide further analyses along with robustness testing. Finally, there will be an evaluation of the findings with a discussion of the overall impact and implications of the study.

Application and Use of Interfund Transfers

Transactions among funds, based on the values given or received, can take place internally or externally. The provision of services at times requires the interaction of multiple funds. This interfund activity consists of two classifications. First, there is reciprocal fund activity which has a reimbursement component and consists of two subclasses: interfund loans and interfund services provided and used. In the case of these subclasses, some type of asset or its equivalent is provided by the borrowing fund to the lending fund in exchange for the approximate amount of the payable whether it is cash or some other asset. Second, there is nonreciprocal interfund activity which can also be divided between two subclasses: interfund transfers and interfund reimbursements. Generally Accepted Accounting Principles (GAAP) define interfund transfers as "flows of assets (such as cash or goods) without equivalent flows of assets in return and without a requirement for repayment" (GASB 1999 ¶112b1). Interfund transfers can also consists of residual equity transfers which are nonrecurring and should be reported as additions or deductions from the fund balance of the impacted governmental funds. GAAP further directs that any 'loans' without a reimbursement requirement within a reasonable timeframe be reclassified as transfers (GASB 1999 ¶112a). Interfund reimbursements, as the name suggests, are repayments to the funds that were initially responsible for the initial expenditures (GASB 1999 ¶112b2).

The interfund transfer is an important tool for subsidizing various services among state and local governments. In most cases, it is used to provide funding for some type of capital project or to stabilize an Enterprise Fund. Some other more common examples include providing operating subsidy to an Enterprise Fund that operates landfill operations, provide subsidy transfers to a Capital Projects Fund for the purchases of a tandem axle dump truck, or a transfer of a residual fund balance of a Debt Service Fund to the General Fund after principal and interest payments have been

fulfilled for public school mobile learning units. Additional uses for transfers include statutory spending requirements as well as ensuring fund solvency (General Accounting Office [GAO] 1985).

The General Fund is usually at the center of most interfund activity. It is the most significant fund maintained by local governments. Most expenditures that pay for traditional services such as salaries, basic equipment, and operations related expenses such as insurance and utilities are paid through the General Fund. It also accounts for resources that are not designated for other funds. For the purposes of this study, the lending or distributing fund, the General Fund, will have a debited expenditure and a *Due to* credited amount while the receiving fund will have a debited *Due from* and a revenue credit for the specified amount. Interfund transfers are not recorded as revenues and expenditures/expenses, but rather as interfund transfers in and out in governmental operating statements. For reporting purposes, information concerning interfund transfers can be found in the Annual Comprehensive Financial Reports (ACFR) in the *Statement of Revenues, Expenditures, and Changes in Fund Balance* for the General Fund as well as each affected fund statement. GAAP requires additional detailed information to be disclosed in the *Notes to the Financial Statements*. Reporting has to be consistent with the level of detail reported in the columns of the basic financial statements which includes all funds with transfer information. All payables and receivables are reported along with the balance, purpose, and any amounts that do not have an expectation for payment by the end of the fiscal year (GASB 2001 ¶14). A further disclosure requires the primary purpose of the disclosure and the reporting of large transfers that are inconsistent or irregular with the transferring fund (GASB 2001 ¶15). Depending on the government unit, this level of detail can have a substantial range.

Literature Review and Hypotheses Measurement

The extant literature thus far has been quite limited concerning any type of interfund activity, especially as it relates to operational transfers; moreover, a more isolated investigation of out-transfers. In a sample of 123 municipalities from 24 states, Felix (2015) suggests that the General Fund is managed toward zero with the use of interfund transfers and the likelihood increases if the municipality has some form of a citizen oversight board, a slightly higher population, a forthcoming bond issuance, higher levels of intergovernmental revenues, and a strong mayor form of government. Lofton and Ivonchyk (2021) conducted a more generalized study of Georgia counties and primarily concluded that the presence of a full-time finance officer was related to the increased use of interfund transfers as a method to enhance cash management practices among local governments. Additional

findings include more General Fund transfers-in with higher populations and commissioners elected by the at-large method. In an analysis of municipalities with specified enterprise funds, Arapis (2013) found that governments actually utilize interfund revenue generated from enterprise funds to enhance own-source revenues while simultaneously reporting reductions in total expenditures.

General Fund levels and stability are quite influential on interfund use. Felix (2015) did conclude that General Fund levels remained negligible despite previous balance levels. This finding was consistent with Raman (1981). One study found it necessary for municipalities to actually lower and even intentionally transfer General Fund balance monies due to union salary ambitions (Gore 2012). However, the general consensus is to maintain an adequate level of funding in the General Fund to maintain the ability to eliminate payables in a timely manner. It is not unusual for there to be standardized indicators that can assist local government financial management practices including fund balance ratios (Municipal Finance Officers Association, 1978; Groves, Godsey, & Shulman, 1981; Groves & Valente, 2003). In many cases, there are state oversight policies that have specific fund balance requirements for any given time that ensures financial solvency (Coe, 2007; Coe, 2008; Modlin, 2010). Depending on how stability is assessed, it is important to decipher the difference between organizational performance versus problems within the organization (Kloha, P., Weissert, C. S. & Kline R., 2005).

Previous studies have provided some explanation for interfund transfers, but none have had a specific focus on many of the internal factors that motivate the decision-making process. Research endeavors thus far have provided limited information concerning the impact of official or employee activity concerning the use of interfund transfers; therefore, the following hypotheses have been developed to provide further explanation of the interaction of county government organizational characteristics and interfund transfer activity. There are limited preconceived expectations concerning the direction of the predictors.

HYPOTHESIS 1: Finance office personnel have an impact on out-transfer activity.

North Carolina General Statute 159 requires each county to appoint a fully bonded finance officer (N.C.G.S. 159-24 2019; N.C.G.S. 159-25 2021: N.C.G.S. 159-29 2022). All finance officers are full time employees which is a contrast to the Lofton and Ivonchyk (2021) sample. Responsibilities within the position are fairly comprehensive and include budget preparation, implementation, ongoing apportionment oversight, accounting for operations

(N.C.G.S. 159-28 2021), banking transactions, investments, and oversight of the audit process. Unlike other states in which part of these responsibilities may fall under elected officials, finance officers in North Carolina have responsibility for all of the administrative aspects regarding transactions. Internal control problems can easily occur with the high number of transactions. More experienced finance officers (FINEXP) have been found to be a deterrence to audit irregularities (Modlin 2012; Modlin 2017; Rich and Zhang 2016). This could explain the continuing escalation of finance officers with accounting backgrounds (Modlin 2016B). Other positions that may impact interfund activity and have implementation responsibilities include the staff accountant (ACCT) and an accounts payable technician. The staff accountant position is expected to have these responsibilities, but findings include execution by other employees as well (Lofton and Ivonchyk 2021). Findings have indicated that with an increase in staff accountants, the likelihood of a material weakness decreases (Modlin 2024C). Accounts payable technicians (APTECH) can also impact transfers, especially in the case of out-transfers with a subsequential cash credited expense following the interfund transfer. Although there are no findings directly related to interfund transfers, one previous finding suggests that these positions may be absorbing too many accounting responsibilities due to a higher level of significant deficiency findings associated with higher levels of the position (Modlin 2024C).

HYPOTHESIS 2: Local government financial performance has an impact on transfer activity.

The net position of the government unit is a primary indicator of financial performance. Local governments with positive net positions have an increased level of expenditure capability due to higher levels of liquidity, along with creditor standing. Among local governments, it is quite common for the ACFR to have detailed financial information in the MD&A for units that have a strong net position that has increased over the past fiscal year (NETPOS) along with accompanying fund balance (FB) information (Modlin 2024A). At times, the audits are specific concerning the reasons behind the changes (CHANGE), especially any efforts that led to significant increases in General Fund balance levels. One recent finding suggests that audits will contain more organizational change information that has the most expenditures dedicated to either human services or law enforcement compared to public education (DEPTED) (Modlin 2024A). In some cases, the information consists of changes among personnel (EMP) activities such as benefit changes, position reclassifications, claims increases, etc. Interfund activity can easily increase with FTE due to a potential increase in

transactions that may deplete specific funds, especially those related to benefits coverage.

Additional financial performance attributes and accounting methods also contribute to interfund activity. As mentioned earlier, interfund transfers necessitate some type of capital project payment. Asset capitalization (CAPITAL) varies across units. For instance, capital project classification of automobiles has increased over the past few decades (Modlin 2016A; Modlin 2025). Among larger governments, repair costs are indirect; therefore, an internal service fund (ISF) is used to account for these costs (Coe and O'Sullivan, 1993). Findings have indicated that an increased number of transactions associated with more employees is associated with a higher likelihood of ISF use (Modlin 2023). Finance office personnel who utilize this fund may utilize many additional funds with interfund transfers.

The ACFR is the overall external evaluation of the financial stability of the unit and the primary source for interfund transfer information. The Government Finance Officers Association (GFOA) certificate in financial reporting excellence is usually displayed prominently within the ACFR although the relationships between the amount of disclosure content and the award has only a modest relationship (Rich et. al. 2021). However, one recent finding suggests recipients provide more disclosure concerning organizational changes that influenced the financial status of the unit (Modlin 2024A). Compliance sections provide information concerning types of audit findings, including the risk status (RISK) of the unit (Roybark 2006). Counties with a 'low' risk designation had financial statements prepared under GAAP standards and principles inclusive of a clean audit for the last two audit cycles. These standards are found in 2 CFR 200.520. Studies have found a link between position skills and classification among larger organizations that have contracted audits with large certified public accountant (CPA) firms are more likely to have the 'low' risk auditee classification (Keating, Fischer, Gordon, and Greenlee 2005). Additionally, smaller governments with smaller staff sizes and capabilities were also found to be less likely to get the 'low' risk designation (Lopez and Peters 2010). Units with the 'high' risk designation could employ recalcitrance concerning transfers and choose to allocate as much funding as possible to specified account codes to avoid transfers.

HYPOTHESIS 3: County government service attributes have an impact on transfer activity.

Similar to previous studies, there will be an examination of service predictors that can easily impact the number of interfund transfers from the General Fund. To this point, service area population (POP) has not had an

impact on interfund transfer activity (Lofton and Ivonchyk 2021; Felix 2015). However, Felix (2015) did find that governments with the strong mayor form did have an increased level of transfer activity, partly due to the political ramifications of expenditure decisions: a contrast to the professional government with the appointed manager. Managers use many performance indicators in substantiating resource allocatio,n including assessing vehicle need based on the number of service miles (MILES) within the county (Modlin 2018). However, even in this form of government, commissioners have stated high levels of involvement within the budget process (Modlin 2008). Additional findings suggest this can be a major challenge for staff if there is no correlation between staff expectations and commissioner requests, with a potential for increased internal control irregularities (Modlin 2019). For interfund transparency purposes, findings have indicated that local governments with a professional manager have more financial stability and higher disclosure quality (Evans and Patton 1983; Giroux and McLelland 2003).

Research Design

North Carolina county governments will be the subjects of this analysis of transfers from general funds. All county governments within the state operate under the commission-manager form of government which are professionally administered county governments. Unlike other forms of local governments, political bias should be at a minimum upon the implementation and execution of government actions. These governments are also under a heavy state oversight process that requires policies that have proven to be quite effective in maintaining unit solvency (Modlin 2010). Some standards include maintaining a General Fund balance at or above 8% of General Fund expenditures, fund balance surpluses, or at least no end-of-year deficits among funds, no prior year deficits, or serious internal control problems (Coe, 2007). Although for General Fund balance levels, counties are expected to maintain levels consistent with assigned peer groups that are based on population quartiles. Most of the information for the study was retrieved from Annual Comprehensive Financial Reports (ACFR) from FY 2023 or the latest available fiscal year. Preliminary findings indicated that a majority of transfers into the General Fund were either some type of reimbursement from another fund or an intergovernmental transfer; therefore, the out-transfers should provide information for direct service-related activities.

This study, compared to the previous study, tries to examine more specific indicators to determine transfer destinations, including personnel, financial performance indicator,s and service characteristics. A majority of the personnel information was obtained from the UNC School of

Government inclusive of finance officer experience (FINEXP), the number of staff accountants (ACCT), and accounts payable technicians (APTECH). Any additional information concerningthe finance office personnel was obtained through the county contact. All information pertaining to financial performance was retrieved from county ACFRs with the exception of the GFOA audit presentation award which was obtained from the Government Finance Officers Association. Population information was obtained from the U.S. Census Bureau while county miles information was retrieved from the North Carolina Department of Transportation (NCDOT).

A primary model has been developed which attempts to answer the primary question of factors that influence transfer amounts, but also how much is budgeted as well as the number of different types of funds. The personnel variables as well as predictors associated with the audit provide a more specified examination of the dependent variables. In the model below, *TRANSFERS* is a proxy for all dependent variables used in the study.

$$TRANSFERS = \beta_0 + \beta_1 FINEXP + \beta_2 ACCT + \beta_3 APTECH + \beta_4 NETPOS + \beta_5 FB + \beta_6 GFCHANGE + \beta_7 ASSETS + \beta_8 ISF + \beta_9 CAPITAL + \beta_{10} RISK + \beta_{11} GFOA + \beta_{12} DEPTED + \beta_{13} TOTEMP + \beta_{14} COMM + \beta_{15} POP + \beta_{16} COMILES$$

Measurements for all variables can be found in the appendix. The study will examine actual transfers from the General Fund, the amounts that were budgeted, and the number of different types of funds utilized. All dependent variables are based on a five-point scale with the highest threshold representing the highest level of transfer amounts, which in this case is $20M or more. For the *Fund Types* variable, the highest threshold is five, representing five or more fund types utilized. The application of discrete variables increases uniformity and efficiency with all measurements and, from a practical standpoint, allows an empirical observation of governments of all sizes. In cases with no standardized measurement reference, alternative indices are not uncommon (Styles and Tennyson 2007). Testing the hypotheses will be conducted through an initial pairwise correlation to test for direct relationships among the predictors, followed by a multivariate analysis.

The impact of organizational staff job functions has a significant impact on effective policy execution and subsequent audit outcomes. In this case, finance office employees are major contributors to amounts and types of transfers; therefore, finance officer experience (FINEXP) is expected to have some type of association with transfer decisions due to the daily position responsibilities of ensuring adequate cash flow for the organization in order to meet payable responsibilities and to ensure financial stability for

future endeavors. Other positions have been mentioned in the previous literature, but have not been tested, therefore this study will examine how transfer activity is related to the number of accountants that are part of the finance office (ACCT) as well as the number of accounts payable technicians (APTECH). It would not be unusual for staff accountants to have transfer responsibilities, but less common for additional staff unless there is a very high experience level with at least some understanding of GAAP standards. Delegation of financial transaction responsibilities is common, but can increase the number of internal control findings (Modlin 2024C).

Numerous financial performance indicators will also be tested for significance. Among the many areas that are highlighted within audits and especially in the Management Discussion & Analysis (MD&A) section is the current net position (NETPOS) and overall fund balance (FB). These are two of the most significant statistics in determining unit solvency and the changing of these values compared to the previous fiscal year is expected to impact transfer activity. The study will also examine how much change has taken place within the General Fund specifically (GFCHANGE) as well as the total assets of each county (ASSETS). Another additional exploratory variable that will be tested is the county capitalization threshold (CAPITAL). Although it has been examined with specific assets in previous research, it will be tested in this study with county assets as a whole. The use of the ISF and education spending (DEPTED) as the highest category level of object expenditures has been primarily indigenous to larger counties in the state and thus will be tested to determine if there is an impact on transfers as well. The only audit-related variable is RISK. Counties with a higher risk designation could have transfer amount limitations due to potential findings

Several variables will be used that are related to service attributes. With the preliminary findings indicating that there are a significant amount of contributions made to nonmajor special revenue funds and since previous research has determined that many objectives among these service areas are area associated, the use of county paved road miles will be used as a predictor, Also, with the significant changes from original budgeted transfer amounts to the ratified amounts, the number of board commissioners (COMM) could have a significant impact on overall transfer amounts. In conjunction with previous research, the overall county population (POP) will be used as a predictor, but the measurement is categorized by county size.

Summary Statistics and Preliminary Results

Descriptive statistics for the entire sample are found in Table 1. General Fund out-transfers among all 100 counties averaged more than $16.4M while the in-transfers averaged approximately $12M less. Overall, ratified budgeted amounts were slightly more than actual transfers. Among

transfers, approximately two types of funds were utilized, although there could be numerous total funds that had a range from zero to eleven. Fund types and amounts can take place among governments of any size. Usually, large transfer amounts primarily fund at least one capital project and are further subsidized non-major special revenue funds. Additional information concerning fund destinations can be found in Table 3.

The personnel quarterly centiles illustrate many of the staffing differences that are usually the result of population size. Finance officer experience is much higher in quartile 3 as well as more staffing, including the presence of at least one staff accountant and one accounts payable technician. For most counties, the largest functional classification expenditure object over the past several years has been law enforcement, followed by public education. The table further provides evidence suggesting county financial viability with the quartile values for assets, net position change, and fund balance change. More than 85% of counties had an increase in net position, with significant increases of more than 10% occurring in more than half. Most counties continually strive to receive the GFOA for ACFR presentation. Unfortunately, most counties were classified as 'high' risk for the 2023 fiscal year due to findings from a previous year.

Table 1: Descriptive Statistics, Full Sample (N=100)

Variable	Mean	Median	Standard Deviation	Q1	Q3
GF Actual (Ordered)	2.74	2	1.45	1	4
GF Budgeted (Ordered)	2.85	3	1.48	1	4
Fund Types (Ordered)	2.19	2	0.93	1	3
FINEXP	2.41	2	1.52	1	3.5
ACCT	0.92	1	1.24	0	1
APTECH	1.75	1	1.54	1	2
NETPOS	2.43	3	0.87	2	3
FB	2.43	3	0.77	2	3
GFCHANGE	2.45	2	1.51	1.5	3
ASSETS	2.63	2	1.57	1	4
ISF	0.39	0	0.49	0	1
CAPITAL	2.11	2	0.45	2	2
RISK	0.57	1	0.50	0	1
GFOA	0.52	1	0.50	0	1
DEPTED	0.27	0	0.45	0	1
TOTEMP	1.46	1	0.54	1	2
COMM	2.35	2	0.52	2	3
POP	2.14	2	1.44	1	3
COMILES	3.46	3.5	1.20	2	5

The predictors were further examined based on a General Fund out-transfer threshold of $10M (Table 2). A total of 34 counties had transfers that exceeded $10M with nearly half having out-transfers of more than $5M. Budget size was not necessarily an indicator of transfer amounts. While the

largest budget group ($200M+) had the most transfers of $10M or more compared to any other group, the next highest group had an equivalent number of government units transferring both amounts. The table also tests for significant differences among predictor variances. Initial findings suggest that some personnel factors, organizational performance indicators, and service attributes all influence General Fund transfer amounts. Counties with higher transfer amounts had additional accounting and accounts payable positions based on the mean values. For the accounting position, the differences were significant with mean values suggesting at least one extra position for counties with high transfer amounts (differences in ACCT at $p <$ .001, t = -3.98). Counties with higher transfer amounts also had the most notable changes in actual General Fund balance amounts during the course of the fiscal year, with increases of just over $5M for this group (differences in GFCHANGE at $p <$ .001, t = -2.84). Counties with interfund transfers exceeding $10M also had public education as the highest category among objects of expenditure and were much more likely to receive the GFOA award for ACFR presentation; however, counties that had a higher percentage of citizens as employees had lower levels of transfers. These hiring practices are somewhat related to smaller counties, with a further breakdown of General Fund transfers suggesting that counties with the highest number of actual employees were most likely to have out-transfers that exceeded $10M. This is further supported by the service predictors of POP and COMILES.

Table 2: Descriptive Statistics Based on General Fund Transfer Differences

	TRANSFER > $10M = 1 (N = 34)			TRANSFER < $10M = 0 (N = 66)			
Variable	**Mean**	**Median**	**Std. Dev.**	**Mean**	**Median**	**Std. Dev.**	**Significance**
FINEXP	2.21	2	1.49	2.51	2	1.54	
ACCT	1.56	1	1.65	0.59	.5	0.78	***
APTECH	2.79	2	1.77	1.21	1	1.07	***
NETPOS	2.53	3	0.93	2.38	3	0.84	
FB	2.41	3	0.74	2.40	3	0.78	
GFCHANGE	3.03	3	1.87	2.15	2	1.21	**
ASSETS	4.15	5	1.20	1.85	1.5	1.09	***
ISF	0.59	1	0.50	0.29	0	0.46	**
CAPITAL	2.14	2	0.36	2.09	2	0.49	
RISK	0.53	1	0.51	0.59	1	0.50	
GFOA	0.85	1	0.36	0.35	0	0.48	***
DEPTED	0.59	1	0.50	0.11	0	0.31	***
TOTEMP	1.15	1	0.44	1.62	2	0.52	***
COMM	2.41	2	0.56	2.32	2	0.50	
POP	3.50	4	1.44	1.44	1	0.79	***
COMILES	4.08	4	0.90	3.13	3	1.21	***

*** represents significance at the .001 level; ** at the .05 level; *at the .10 level

General Fund out-transfer activity by government size, amount, and object area is specified in Table 3. Only seven counties did not have any type of General Fund out-transfer. All had overall budget sizes of less than $100M. The amount of both actual and budgeted transfers had gradual increases, with more substantial increases among the largest budget group. Much of this increase is associated with the acquisition and sustainment of capital projects and debt service, which is partially represented in Panel B. Initial investigation observations of strikingly low original budgeted amounts compared to the final ratified appropriation were quite substantial among most county governments. It was not unusual for the increase in the final budgeted amount to exceed the original proposal by more than 50%. One conclusion was that as funding was assigned to operating budget account codes, fluctuating levels of fund balance were still available that could be expended while sustaining peer level overall fund balance levels, thus transfers were made based on postponed department manager and perhaps elected official requests until revenue levels could be ascertained. As a testament to the capability of the managers and their teams, there were not significant levels of differences between the budgeted and actual transfers with each budget group having fewer funds transferred compared to the budgeted amount. Approximately 18 counties had transfers that exceeded budgeted amounts. In a majority of counties, the values had high equivalency.

Table 3: Average General Fund Transfer-Out Amounts by County Budget Size

Category Panel A	Less than $50M	$50M-$100M	$100M-$150M	$150M-$200M	More than $200M
GF Transfer (Budgeted)	$1,527,479	$5,953,704	$14,888,160	$ 15,287,045	$68,910,762
GF Transfer (Actual)	$1,468,226	$5,171,660	$13,772,369	$12,313,370	$65,682,302
Category Panel B	**Less than $50M**	**$50M-$100M**	**$100M-$150M**	**$150M-$200M**	**More than $200M**
Capital (n=78)	$114,205	$3,082,021	$9,562,210	$8,015,706	$18,805,573
Debt Service (n=22)	$126,424	$1,069,718	$1,394,735	$1,030,545	$60,935,938
Reevaluation (n=30)	$31,726	$66,188	$43,551	$0	$84,875
Emergency Telephone (n=31)	$6,398	$31,808	$16,905	$9,542	$223,445

Panel B provides information concerning the most funded areas through transfers based on county transfer frequency. According to the audits, approximately 78 counties provide some level of funding for capital projects through General Fund transfers. The service capability of the larger

governments is sustained based on the high levels of spending among these countries compared to other groups. This is exemplified further by the debt service levels. Of course, traditional debt service is used for the retirement of large budget items such as buildings, water and sewer infrastructure, land, etc. However, for smaller governments with lower capitalization thresholds, this could easily include automobiles, trash compactors, large copiers, etc. (Modlin 2016A). The interfund transfers for emergency telephone service primarily subsidized the nonmajor special revenue fund for the service. The state provides most of the funding which is based on a statewide surcharge formula that reimburses counties for most of the costs incurred (North Carolina General Statute 62A, 2007). Normally, these are frequent interfund transfers comprising the highest level of funding among nonmajor special revenue funds (Modlin 2024B).

Bivariate direct relationships are examined with the pairwise correlations (Table 4). Findings among the variables demonstrate support for all hypotheses. Among at least two of the finance office positions, the number of accountants and accounts payable personnel, there are very strong and positive correlations with all three dependent variables. There were no significant relationships between the FINEXP variable and the dependent variables, but there was a statistically significant relationship between finance officer experience and a lower number of accountants, suggesting a possible increase in position responsibilities with less experienced finance officers. For the performance indicators, there were many correlations with the descriptive statistic panels. Many variables had positive and statistically significant relationships with many of the dependent variables, including GFCHANGE, ASSETS, ISF, GFOA, and DEPTED. The total number of employees by FTE per capita had a significant and negative relationship with two of the dependent variables while county net position increases only had a relationship with the GFBUDGET variable. A relationship was also found between audit risk designation and fund type utilization (r = -0.1712, p = .010). County population and the number of county miles had positive and significant relationships with at least two of the dependent variables, providing some support for the third hypothesis. These findings, in conjunction with the personnel and performance findings, indicate that among all of the variables, the evidence suggests that continued overall government growth is a foundation for increased personnel and revenue enhancement, and based on the GFOA findings, more transparency.

Table 4: Pairwise Correlations (N=100)

Variable	GF Actual	GF BUDGET	FUNDS	FINEX	ACCT	APTECH	NETPOS	FB	GFCHA
GF Actuals	1.000								
GF Budgeted	0.9394***	1.000							
Fund Types	0.3453**	0.3223**	1.000						
FINEXP	-0.1343	-0.1247	0.0372	1.000					
ACCT	0.4174***	0.3854***	0.2333**	-0.2128**	1.000				
APTECH	0.4874***	0.4577***	0.2384**	-0.0721	0.4828***	1.000			
NETPOS	0.1302	0.1845*	0.0104	0.0257	-0.0429	0.0132	1.000		
FB	0.0606	0.0637	-0.1531	0.0967	-0.0077	-0.1005	0.3549**	1.000	
GFCHANGE	0.2985**	0.3236**	-0.0902	-0.0545	0.3433**	0.2048**	0.2050***	0.3617**	1.000
ASSETS	0.7645***	0.7652***	0.1522	-0.1297	0.4984***	0.5782***	0.0437	0.0098	0.4946***
ISF	0.3438**	0.3739***	0.2571**	-0.0269	0.1686*	0.2241**	0.0530	-0.1341	0.1287
CAPITAL	0.1227	0.1321	-0.1238	-0.0372	-0.0205	-0.0770	0.0070	0.2207**	0.2396**
RISK	-0.1428	-0.1159	-0.1712*	-0.0715	0.0092	-0.1022	0.1051	0.0696	0.0718
GFOA	0.4661***	0.4867***	0.1975**	-0.0174	0.3117**	0.4572***	0.0612	-0.0871	0.3137
DEPTED	0.5167***	0.4292***	0.0456	-0.1495	0.3142**	0.3786***	-0.1986**	0.2088**	0.1773**
TOTEMP	-0.4662***	-0.4186***	-0.1560	0.0999	-0.2773**	-0.4071***	-0.1031	0.0766	-0.2189
COMM	0.0954	0.0558	0.0701	-0.0045	-0.0031	0.0978	-0.2027**	0.0672	0.0802
POP	0.7423***	0.7042***	0.1314	-0.2572**	0.5526***	0.6374***	-0.0002	-0.0619	0.4589
MILES	0.5054***	0.5166***	0.1925**	-0.1536	0.2903**	0.2594**	0.1669*	-0.0533	0.3851

Variable	ASSET	ISF	CAP	RISK	GFOA	DEPED	EMP	COMM	POP	MILE
ASSETS	1.000									
ISF	0.3722***	1.000								
CAP	0.1732*	-0.0134	1.000							
RISK	0.0012	0.1561	-0.0577	1.000						
GFOA	0.5909***	0.2758**	-0.0324	-0.0663	1.000					
DEPTED	0.5032***	0.2526**	0.1534	-0.1087	0.3138**	1.000				
TOTEMP	-0.4872***	-0.1504	-0.0444	-0.0459	-0.2952**	-0.3951***	1.000			
COMM	0.1599	0.0932	0.2238**	0.0410	0.1084	0.1111	-0.0756	1.000		
POP	0.8679***	0.2948**	0.1331	-0.0139	0.5846***	0.5396***	-0.5924***	0.1502	1.000	
MILES	0.6038***	0.3956***	0.1305	0.1484	0.3530**	0.3313***	-0.5166***	0.0954	0.6125***	1.000

Notes: Table 4 represents pairwise correlations of the variables used in the analysis. ** represents correlations at the .05 level; *at the .10 level. MW and SD are bivariate variables in this table.

Multivariate Results

Table 5 presents three ordered logistic regression models that examine the incremental changes in county government General Fund out-transfers. Two of the models examine actual dispersed fund levels, while the Fund Types Model examines different types of funds. Unlike the previous analysis, there are few significant relationships associated with finance office personne,l although the skills associated with many finance office positions are critical to GAAP consistency and audit accuracy. Based on the Fund Types Model, as the number of accounting positions increases within a government unit, there is a higher likelihood of the utilization of different types of funds. Based on previous tables, counties choose to have some type of out-transfer from the General Fund for capital project purposes and, more than likely, some nonmajor special revenue fund.

The organizational performance variables provided the most explanatory power concerning General Fund transfers based on the models. Higher levels of net position and fund balance increases compared to the previous fiscal year had significance with the first two models, but not with the Fund Types model. Interestingly enough, the amount of actual General Fund changes during the year had a significant, but inverse relationship with the transfer models, suggesting that if General Fund budgeted amounts are fairly stabilized, then the amount associated with transfers declines. Increased levels of internal service fund usage and a higher number of county assets, attributes more commonly associated with larger county governments, had significant relationships with all models; however, there was an inverse relationship the number of different funds utilized and county assets (ASSETS = -.1078; Z = -0.40). Significant findings among all three models concerning the RISK variable suggest that counties that have experienced previous audit discrepancies may be attempting to simplify transactions.

Table 5: Determinants of General Fund Out-Transfers by Amounts and Fund Types

Panel	GF Actual		GF Budgeted		Fund Types	
FINEXP	.0731	(0.50)	-.0361	(-0.25)	.1153	(0.83)
ACCT	.2427	(0.98)	.0977	(0.42)	.5750	(2.81)**
APTECH	-.1851	(-0.96)	-.1645	(-0.86)	.2064	(1.13)
NETPOS	.6915	(2.34)**	.7204	(2.39)**	.1023	(0.37)
FB	.6375	(1.99)**	.3475	(1.11)	-.0363	(-0.12)
GFCHANGE	-.3982	(-2.21)**	-.2986	(-1.64)*	-.3750	(-2.26)
ASSETS	.8781	(2.89)**	1.0948	(3.52)***	-.1078	(-0.40)**
ISF	1.0690	(2.18)**	1.0073	(2.05)**	1.1122	(2.31)**
CAPITAL	-.5519	(-1.05)	-.3009	(-0.58)	-.2880	(-0.59)
RISK	-1.3971	(-3.05)**	-1.3007	(-2.90)**	-1.0179	(-2.38)**
GFOA	-.6143	(-1.11)	-.3198	(-0.60)	.4940	(0.95)
DEPTED	1.1427	(1.86)*	.3163	(0.51)	-.5521	(-0.99)
TOTEMP	-.3179	(-0.64)	-.1355	(-0.27)	-.2725	(-0.57)

COMM	.18306	(0.42)	-.1184	(-0.27)	.3731	(0.92)
POP	1.0244	(0.50)**	.6526	(1.67)*	-.2662	(-0.76)
COMILES	-.0355	(0.98)	.0456	(0.18)	.4677	(1.93)**
Threshold 1	2.6762		1.9793		-.5486	
Threshold 2	4.7924		4.0044		2.0018	
Threshold 3	6.2403		5.4923		4.1680	
Threshold 4	8.6381		7.1866		5.7662	
N	100		100		100	
Log. Lik.	-101.5525		-107.5633		-110.5981	
LR Chi-Squared (16)	113.66***		102.99***		36.19**	
McFadden's Pseudo R-Squared	.3588		.3237		.1406	

Notes: Cell entries are unstandardized parameter estimates; **$p < .05$; *$p < .10$ (Two-tailed test). Z Scores in parentheses. The table presents estimates of ordered logistic regression specifications. For the dependent variables, GF Actual = 5 if total transfer amounts exceeded $20 million; GF Budgeted = 5 if total transfer amounts exceeded $20 million; Fund Types = 5 if at least five different types of funds were utilized

All three models provided some evidence that service attributes influence transfer amounts and fund choices. County population was positive and significant, with both transfer models indicating that as populations increase, the amounts of budgeted transfers and actual transfers increase as well. The actual number of paved miles was significant within the Fund Type Model (COMILES = .4677; Z = 1.93). This finding is possibly related to emergency medical (EMS) or law enforcement objectives. One previous finding suggests that these departments are frequent recipients of revenue from various non-major special revenue funds (Modlin 2024B). All models were significant at some defined level after being tested against a constant-only model; therefore, this is an indicator that, as a set, the predictors are reliable for determining the varying levels of transfers and fund usage among county governments.

Model robustness results were tested with the substitution of two predictors (Table 6). The number of accounts payable positions (APTECH) was replaced with the business officer position (BUSINESS), which is a position within multiple departments that has responsibilities that are similar to those within human resource departments as well as finance department staff. The position is coded as a dichotomous variable since the assigned department budgets the position by choice. Departments with numerous employees normally have this position or one that is somewhat comparable with responsibilities that include frequent contact with human resources and finance departments, providing assistance for continuing position changes and classifications, among other responsibilities. The service area with the highest level of functional classification spending was also replaced. County

spending on public education (DEPTED) as a functional classification expenditure area was replaced with public safety or law enforcement spending (DEPTLAW). This mainly consists of spending associated with the sheriff's office.

Table 6: Alternative Determinants of General Fund Out-Transfers by Amounts and Fund Types

Panel	GF Actual		GF Budgeted		Fund Types	
FINEXP	.0825	(0.56)	-.02863	(-0.20)	.1607	(1.14)
ACCT	.1539	(0.65)	.0209	(0.09)	.5649	(2.82)**
BUSINESS	.4556	(0.96)	.5602	(1.22)	.6159	(1.43)
NETPOS	.6547	(2.24)**	.7307	(2.45)**	.1682	(0.64)
FB	.5618	(1.70)*	.2573	(0.79)	-.1379	(-0.44)
GFCHANGE	-.3839	(-2.09)**	-.2768	(-1.51)	-.3790	(-2.28)**
ASSETS	.8918	(2.97)**	1.0816	(3.58)***	-.1067	(-0.39)
ISF	.9681	(2.01)**	.8936	(1.84)*	1.1053	(2.30)**
CAPITAL	-.4175	(-0.83)**	-.2065	(-0.41)	-.3758	(-0.80)
RISK	-1.3111	(-2.89)**	-1.2174	(-2.75)**	-.9273	(-2.18)**
GFOA	-.7216	(-1.29)	-.4660	(-0.86)	.5548	(1.06)
DEPTLAW	-1.1677	(-2.04)**	-.4238	(-0.74)	.0749	(0.15)
TOTEMP	-.2151	(-0.44)	-.0181	(-0.04)	-.2674	(-0.56)
COMM	.0792	(0.18)	-.1869	(-0.43)	.3989	(0.98)
POP	.9253	(2.30)**	.6072	(1.58)	-.1786	(-0.53)
COMILES	-.0232	(-0.10)	.0403	(0.16)	.3281	(1.39)
Threshold 1	1.7384		1.856		-.8082	
Threshold 2	3.8745		3.9190		1.7365	
Threshold 3	5.3526		5.4261		3.9144	
Threshold 4	7.7071		7.0845		5.5027	
N	100		100		100	
Log. Lik.	-101.1510		-107.0335		-110.6284	
LR Chi-Squared (16)	114.47***		104.04***		36.12**	
McFadden's Pseudo R-Squared	.3614		.3271		.1404	

Notes: Cell entries are unstandardized parameter estimates; $^{**}p < .05$; $^{*}p < .10$ (Two-tailed test). Z Scores in parentheses. The table presents estimates of ordered logistic regression specifications. For the dependent variables, GF Actual = 5 if total transfer amounts exceeded $20 million; GF Budgeted = 5 if total transfer amounts exceeded $20 million; Fund Types = 5 if at least five different types of funds were utilized

A high level of consistency remained among all models, with only a few changes. The GF Actual Model with the substitutions now has nine significant predictors with the addition of the CAPITAL predictor. The model also had significance with the departmental variable, except that it was negative, indicating that more out-transfers were associated with county governments that did not have law enforcement as the primary recipient of spending based on functional classification area. The GF Budgeted Model had modest changes with the exclusion of two variables; however, the remaining variables all had similar directions. The Fund Types Model

obtained the GFCHANGE variable, which had consistency among all models, suggesting that fewer transfers were budgeted, spent, and less fund versatility was used when there were fewer fluctuations with General Fund monies during the fiscal year. However, with predictor changes, the model has no significant variables among service attributes.

The models provide at least some support for all hypotheses. Personnel factors had the most limitations among the model,s with the number of accountants having significance only within the Fund Types Model. This finding is reflective of the responsibilities of this position, especially with regard to journal transactions that would involve multiple funds. Although not significant, the experience and background of the finance officer is extremely important in any endeavors that involve the execution of more complex accounting practices. The models overwhelmingly support the second hypothesis with numerous findings among several models. The models demonstrate that funding levels and accounting practices both influence the amounts of transfers and fund outcomes. Overall, the analysis indicates that counties with ongoing financial stability are more likely to have an increase in transfers, especially in cases with limited audit findings. Population increase was the primary support for the service attributes hypothesis. Transfers appeared to correlate with population changes. County miles were also significant, but only within the Fund Types Model. This finding can also be attributed to the non-major special revenue transfers counties make to other departments or other municipalities within the respective county for economic development purposes.

Conclusion

This study has examined interfund transfers that moved from the General Fund to other funds among county governments in North Carolina. Taken as a collective and with preliminary findings, the models suggest initial conservative estimates of out-transfers from the General Fund based on budgeting totals, but as the accuracy of unit financial status emerges with all pertinent accounts funded, transfers are budgeted accordingly. This is represented by the net position and asset findings. As the fiscal year continues, the counties easily remain within budget transfer amounts with lower actuals. The fund balance and General Fund fiscal year change findings suggest that counties are reluctant to issue transfers unless revenue availability has been established. The probability of transfers also lessened if there was a previous auditing inconsistency, suggesting a need to ensure accurate budgeting services in order to reduce unnecessary transactions. The presence of more accountants was also linked to more versatility in fund usage, and not surprisingly, counties with more assets and counties that

utilize more sophisticated accounting procedures, such as the internal service fund, are more likely to have additional transfers.

The findings of this research were not necessarily comparable to the previous findings associated with interfund transfers and in some cases, there were definite contrasts. All finance officers in North Carolina are full-time, but some in smaller counties do have other managerial responsibilities (Lofton and Ivonchyk 2021). In contrast to Felix (2015), there is no evidence to suggest that county governments manage the General Fund toward zero; conversely, overall total fund balances, net positions, and General Fund changes primarily increased for these governments, with more than 75% increasing General Fund totals by more than $1M during the fiscal year. With the preliminary analysis, enterprise funds were primarily the recipients of transfer-out funds due to inadequate funding which contrasts the findings of Arapis (2013), but consistent with findings concerning intermittent funding inadequacies with counties that have countywide water operations (Modlin 2012).

The study consists of several limitations. First, specific position responsibilities, inclusive of interfund transfers, along with their experience, could provide further information. Second, this study, nor any of the prior studies, had any information concerning the actual number of transfers, just the funding amounts. Although formalized policies may not have a transfer limit, more information concerning specific sums could provide further insight into official comfort levels concerning transfers. Finally, a major limitation of this study is the state oversight process that exists in North Carolina. The process really limits government expenditures, which requires not only a specified statutory fund balance but also suggests that units maintain performance indicators consistent with those of their peer group. The Local Government Commission (LGC) also has oversight concerning debt service issuance, banking, investment policies, etc., not to mention accounting activities; therefore, fiscal stability is a priority.

The study demonstrated the effectiveness of the commission-manager form of government, with the accuracy of the budgeting process, as well as accounting expertise with interfund transfers. From an auditing standpoint, it is imperative that personnel have the capabilities to adequately identify all transactions associated with transfers that include the complexities of the debt issuance process, as well as specific fund allocation. As governments continue to grow and the services expand, an increased knowledge base of governmental accounting has even more importance.

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Appendix

Variable	Definition
GF Actuals (DV-Ordered)	Actual amount of funds transferred from the general fund ; 5 = $20M or More Source: ACFR
GF Budgeted (DV-Ordered)	Total Budgeted amount of funds transferred from the general fund; 5 = $20M or More Source: ACFR
Fund Types (DV-Ordered)	Total Number of Fund Types Utilized; 5 = 5 or More Source: ACFR
FINEXP	Finance Officer Experience; 5 = More than 20 Years Source: UNC School of Government County Salary Study, ACFR
ACCT	Number of Staff Accountants; 5 = Five or More Source: UNC School of Government County Salary Study
APTECH	Number of Accounts Payable Technicians on Staff; 5 = Five or More Source: UNC School of Government County Salary Study
NETPOS	Net Position Change from Previous Year; 3 = Increase by More Than 10% Source: ACFR
FB	Overall Fund Balance Change from Previous Year; 3 = More than 10% Source; ACFR
GFCHANGE	The Amount of Change within General Fund during the FY; 5 = More than $20M Source ACFR
ASSETS	Total accumulated assets in all governmental funds; 5 = More than $250M Source ACFR
ISF	Utilization of internal service funds for indirect cost assessment; 1 = Yes Source ACFR
CAPITAL	County Capitalization Policy Threshold; 3 = 10K or More Source ACFR
RISK	County Government Designated High Risk by Audit Firm; 1 = Yes Source: ACFR
GFOA	GFOA Award Recipient for previous FY; 1 = Yes Source Government Finance Officers Association, County ACFR
DEPTED	Functional Classified Area with Highest Level of County Expenditures; 1 = Education Source: ACFR
TOTEMP	Number of County Employees as a Percent of County Population; 3 = More than 2% Source: ACFR
COMM	Number of Elected County Commissioners; 3 = 6 or More Source: UNC School of Government, County and Municipal Government
POP	Number of County Citizens; 5 = More than 250K Source: US Census Bureau
MILES	Number of paved road miles within county; 5 = More than 1,000 paved miles within county Source: NC Department of Transportation