

Program Types, Goal Ambiguity, and Performance in U.S. Federal Programs

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Abstract

Since Lowi (1972, 299) suggested the assumption “policies determine politics,” many scholars in public policy and public management have emphasized the importance of research on the variations among public program or policy types (Kettl 1993; Ripley and Franklin 1982; Salamon 2002; Meier 2000; Frederickson and Frederickson 2006). This study explores the effects of current federal program types on program performance, the effects of program goal ambiguity on program performance, and the moderating role of the program goal ambiguity between program types and program performance. This analysis of the results of 767 federal programs shows that different program types have different mean levels of PART program performance scores. The results also show that a particular type of goal ambiguity, “program target-specification goal ambiguity” has a significant and negative relationship with program performance scores, and that program target-specification goal ambiguity is a moderator between program types and program performance. That is, within the different categories of program type, programs higher on target specification goal ambiguity received lower program performance scores. This study suggests that clarification of program goals is an important management strategy for attaining higher program performance scores.

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INTRODUCTION

Since Lowi (1972, 299) suggested the assumption “policies determine politics,” many scholars in public policy and public management have emphasized the importance of research on variations among public program or policy types (Kettl 1993; Ripley and Franklin 1982; Salamon 2002; Meier 2000; Frederickson and Frederickson 2006). How different public programs present different management challenges relates closely to program performance and the success of the programs or tools. For instance, public programs have different political environments which make for different relationships between the bureaucracy and the people with whom the bureaucracy works (Kettl 1993; Ripley and Franklin 1982). Such variations raise questions about whether different types of public programs will face different challenges that affect on program performance.

Concerning goal characteristics as important factors in public policy and management, one frequently encounters the observation that public organizations and public programs have greater goal ambiguity, as compared to private companies. Many scholars have asserted that ambiguous goals have significant consequences for public organizations and policies, such as political compromise and policy success or failure (e.g., Allison, 1983; Dahl and Lindblom, 1953; Downs, 1967; Drucker, 1980; Lynn, 1981; Lowi, 1979; Matland, 1995; Wildavsky, 1979; Wilson, 1989; Ripley and Franklin 1982). Goal ambiguity (or clarity) in public policies is an especially important factor in policy success (See O’Toole 1986; Ripley and Franklin 1982). Goal ambiguity is one of the five most salient factors in policy implementation that Ripley and

Franklin (1982) described as making the success of public policy more difficult, due to many actors, a complex mix of public programs, intergovernmental context, and uncontrollable factors.

Researchers have reported that very little large-sample empirical research on how federal program type relates to program performance and on how program goal ambiguity affects program performance. This scarcity probably results from methodological problems such as complexity of classifying program types and measuring program goal ambiguity and program performance. Kettl (1993) points out that a case-selection bias has plagued the research of public policy implementation and has made it difficult to develop theories on the topic. Here, we report a large-sample empirical study of the relationships between program types, goal ambiguity, and program performance using 767 U.S. federal programs included in the PART (Program Assessment Rating Tool) data provided by OMB (Office of Management and Budget). This study used the program types in the PART data into which programs are categorized: Direct Federal, Credit, Research and Development, Competitive Grant, Capital Assets and Service Acquisition, and Regulatory programs. For program goal ambiguity, the present research measured target-specification goal ambiguity by using the reported goals in the PART. As a measure of program performance, this study used the overall assessment rating scores, which reflect various dimensions of program activities including program design, program strategic planning, program management, and program accountability/results, provided by OMB.

As shown in Figure 1, the purposes of the present study are to explore the relations of the current federal program types on program performance, the effects of the program goal ambiguity on program performance, and whether goal ambiguity moderates the relationship between program types and program performance. To that end, this study proceeds as follows. First, we review the literature on program performance, the PART performance assessment

system, PART program types, and program goal ambiguity. Based on the literature, we present hypotheses about the direct effects of program types and program goal ambiguity on program performance and about the moderating effect of program goal ambiguity on the relationships between program types and program performance. Next, we test the hypotheses by using the moderated hierarchical regression methods. The last section shows findings and implications and suggests future research directions.

[Insert Figure 1 about here]

LITERATURE REVIEW AND HYPOTHESES

PART Performance Scores as Federal Program Performance

People in public organizations concern themselves with performance and effectiveness, because in pursuing their goals they influence the quality of our lives and even our ability to survive (Rainey 2003). However, most scholars agree that there is little consensus on a precise conception of organizational effectiveness or on how to assess it properly (Cameron and Whetten 1983) because effectiveness has long been one of the most pervasive yet least delineated organizational constructs (Goodman and Pennings 1977). There have been various ways proposed for understanding performance and examining the factors that influence it. Different studies have focused on different aspects and units of performance (Campbell 1977).

According to Boschken (1994), performance analysis can be conducted at three levels – the individual employee or small group, the program, and the organizational level (309). This study analyzes performance at the program level. We use the overall assessment rating scores for federal programs provided by OMB in the PART system as the dependent variable in order to use a comprehensive program performance measure. The PART data include four categories of

performance indicators: program purpose and design, strategic planning, management, and accountability/results. For its overall assessment rating as the dependent variable in this study, a federal program can receive one of five potential ratings: Effective, Moderately Effective, Adequate, Ineffective, and Results Not Demonstrated. However, PART assessors use the four categories to provide these ordinal ratings and we use numerical scores from 0 to 100 as a measure of performance. The overall assessment rating combines the numerical ratings from 0 to 100 on the four categories, with weights on the categories. "Program assessments are comprised of four sections. Each section addresses a different aspect of the program with different weights for the overall program assessment rating: program purpose and design (20%), planning (10%), management (20%), and results and accountability (50%)" (OMB, 2007). The explanations about the four performance sections are as follows (Lewis 2008):

- Program Purpose and Design: to assess whether the program design and purpose are clear and defensible.
- Strategic Planning: to assess whether the agency sets valid annual and long-term goals for the program.
- Program Management: to rate agency management of the program, including financial oversight and program improvement efforts.
- Program Results: to rate program performance on goals reviewed in the strategic planning section and through other evaluations.

Program or Policy Types

Out of a variety of factors influencing performance, this study focuses on program types in the PART system. Since Lowi (1972) argue that different policies have different politics," public

policy scholars have tried to divide U.S. federal policies into several types. Based on the likelihood and applicability of coercion, Lowi's (1972) system of classifying public policies includes four categories: distributive policy (e.g., subsidies and tariffs), regulatory policy (e.g., unfair competition and elimination of substandard goods), constitutional policy (e.g., propaganda and setting up a new agency), and redistributive policy (e.g., social security and progressive income tax). Ripley and Franklin (1982) suggest a fourfold classification of American domestic policy on the basis of the major social purpose which governmental bureaucracies accomplish: distributive (e.g., income tax deduction for interest on home mortgages and for local property taxes to encourage home ownership and grants for research to universities and private laboratories), competitive regulatory (e.g., authorizing and requiring specific airlines to operate specific routes and authorizing and requiring the operation of specific television channels and radio frequencies by specific operators), protective regulatory (e.g., wage and price controls and high taxation to discourage the use of scarce or dangerous commodities), and redistributive (e.g., the provision of food stamps for the disadvantaged and requirements of affirmative action in hiring by federal contractors). Later, Meier (2000) follows Lowi's classifying method in his book on American bureaucracy. On the basis of coerciveness¹, directness², and visibility³, Salamon (2002) broadly divides the governmental tools into two: direct and indirect tools. Direct tools, which have higher coerciveness, directness, and visibility than indirect ones, include direct government, government corporations, economic regulation, public information, and direct

¹ "Coerciveness measures the extent to which a tool restricts individual or group behavior as opposed to merely encouraging or discouraging it" (Salamon, 2002: 25).

² "Directness measures the extent to which the entity authorizing, financing, or inaugurating a public activity is involved in carrying it out. A direct tool is one in which authorization, funding, and execution are all carried out by essentially the same entity" (Salamon, 2002: 27).

³ "Visibility measures the extent to which the resources devoted to a tool show up in the normal government budgeting and policy review processes" (Salamon, 2002: 35).

loans. Indirect tools are contracting, loan guarantees, grant, tax expenditures, fees and charges, insurance, tort law, vouchers, government-sponsored enterprises.

Recently, Chun and Rainey's (2005a) policy types include regulatory policy and non-regulatory policy. Their classification is based on *Congressional Quarterly's Federal Regulatory Directory*, which includes all the federal agencies with regulatory policy responsibility. According to their analysis, regulatory policy programs are often characterized by a high degree of visibility since they tend to clearly divide winners and losers by generally imposing costs rather than providing benefits. On the other hand, non-regulatory ones often have a high level of cooperation through policy subsystems. Using the PART results, Frederickson and Frederickson (2006) reclassify the types of federal programs provided by OMB into two categories: direct (direct federal, credit, regulatory, and capital assets and service acquisition) and third-party programs (block and formula grant, competitive grant, and research and development). The criterion of their classification is whether a program is directly operated by federal government.

Those previous typologies of public policy have some weaknesses. First, the conceptual distinction between distributive and redistributive policies proposed by Lowi (1972) and Ripley and Franklin (1982) has been criticized as a distinction with no difference (Chun and Rainey, 2005a). Second, Chun and Rainey's (2005b) classification consisting of just two types is intended for the analysis of federal agencies rather than agencies. Therefore, their method is not suited for this study, which analyzes federal programs instead of federal agencies, because a federal agency generally manages multiple programs, which are included into different

categories of policy type.⁴ Third, Frederickson and Frederickson's (2006) classification has a limitation to reflect and explain the policy types in the PART system, due to the simplified classification.

Therefore, this study includes the following federal programs in the PART system: direct federal, credit, research and development, block\formula grant, competitive grant, capital assets and service acquisition, and regulatory. According to OMB's (2008) explanation, federal programs deliver goods and services employing different mechanisms. That is, different federal programs have different characteristics as follows⁵:

- **Direct Federal** - Programs where services are provided primarily by employees of the Federal government, such as the State Department's Visa and Consular Services program.
- **Credit** - Programs that provide support through loans, loan guarantees and direct credit, such as the Export Import Bank's Long Term Guarantees program.
- **Research and Development** - Programs that focus on knowledge creation or its application to the creation of systems, methods, materials, or technologies, such as DOE's Solar Energy and NASA's Solar System Exploration programs.
- **Competitive Grant** - Programs that provide funds to State, local and tribal governments, organizations, individuals and other entities through a competitive process, such as Health Centers at the Department of Health and Human Services (HHS).
- **Capital Assets and Service Acquisition** - Programs that achieve their goals through development and acquisition of capital assets (such as land, structures, equipment, and intellectual property) or the purchase of services (like maintenance and information

⁴ As a representative example, the Department of Agriculture has more than 50 different kinds of programs.

⁵ For more explanation, refer to <http://www.whitehouse.gov/omb/expectmore>.

technology). Program examples include Navy Shipbuilding and the Bonneville Power Administration.

- **Regulatory** - Programs that accomplish their mission through Federal rules that implement, interpret or prescribe law or policy, or describe procedure or practice requirements, such as the U.S. Environmental Protection Agency's Mobile Source Air Pollution Standards and Certification program.

- **Block/Formula Grant** - Programs that provide funds to State, local and tribal governments and other entities by formula or block grant, such as Department of Energy's (DOE) Weatherization Assistance program and HHS' Ryan White HIV/AIDS program.

Program Types and Program Performance

Different types of federal programs face different political situations, which cause differences in policy processes (Meier 2000; Ripley & Franklin 1982; Lowi 1972). Managers of different types of programs have different levels of discretion or autonomy in the process of managing the programs and improving program performance (Behn 2001; Wilson 1980; Lowi 1972). The reason is that different programs experience different levels of intervention and influence in the policy process from multiple stakeholders including constituencies, politicians, federal agencies, and interest groups. Furthermore, Frederickson and Frederickson (2006) claim that different types of federal programs have a different quality of management and a different nature of accountability. Therefore, we hypothesize that different types of public programs are likely to show different effects on program performance.

Hypothesis 1: Different types of federal programs will have different levels of program performance.

The Moderating Effects of Program Goal Ambiguity

Chun and Rainey (2005a) developed four concepts of goal ambiguity in federal agencies: mission comprehension ambiguity, directive goal ambiguity, evaluative goal ambiguity, and priority goal ambiguity. Their typology focuses on goal ambiguity at the organizational level. However, this study centers on goal ambiguity at the program level. In this study, we use the concept of target-specification goal ambiguity developed by Jung and Rainey (2008). Target-specification goal ambiguity refers to the lack of clarity in deciding on the quantity and/or quality of work toward the achievement of a program's performance goals (Jung and Rainey 2008). As explained later, this study measures this construct as the proportion of a program's stated goals for which the PART report states performance targets. That is, the number of goals without concrete targets is divided by the total number of the goals in each federal program. (For some of the goals reported in PART reports, such target information is stated. For other goals, it is not.) Some motivation theorists posit that more specific goals lead to higher performance (Locke and Latham 2002; Bandura 1989; Lee et al., 1989). For example, Bandura (1989, 42) asserted that "Explicit standards regulate performance by designating the type and amount of effort required to attain them by furnishing unambiguous signs of accomplishments." Reviewing 14 laboratory experiments and 8 field studies, Latham and Lee (1986) concluded that specific goals produce higher levels of performances than non-specific ones do. Numerous studies have found that specific goals facilitate performance more than do general intentions, such as "do your best" (Bandura and Cervone 1983; Locke et al. 1981). In addition, according to goal setting theory, specific challenging goals enhance and sustain employees' motivation (Locke et al. 1981; Locke and Latham 2002; Bandura 1989). Unless effectively and specifically set, goals may

undermine public employees' work motivation and in turn, decrease program performance.

Therefore, we expect that target-specification goal ambiguity will be negatively related to program performance.

Hypothesis 2: Program target-specification goal ambiguity will be negatively related to program performance.

In addition, this study focuses on the moderating role of goal ambiguity. A moderator refers to "a variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (Baron and Kenny 1986, 1174). We argue that program target goal ambiguity as a moderator could influence the relation between program types and program performance. According to Ripley and Franklin (1982), program implementation processes are surrounded by the five features as follows:

"Implementation processes involve many important actors holding diffuse and competing goals and expectations who work within a context of an increasingly large and complex mix of government programs that require participation from numerous layers and units of government and who are affected by powerful factors beyond their control" (9). These five characteristics of the policy implementation processes could influence the success or failure of the program. In other words, this political nature of the implementation process could determine whether policy implementation leads to desired performance (Ripley and Franklin 1982). Among these five political features of policy implementation process, this study focuses on the impact of the program goal ambiguity as a moderator on the relationships between program types and program performance, as shown in Figure 2 below. For this study, we expect that goal ambiguity is likely to negatively affect the effect of program types on program performance, in the way that in

federal programs with higher goal ambiguity, program types may be negatively related to program performance.

[Insert Figure 2 about here]

Hypothesis 3: Program target-specification goal ambiguity will moderate the relationships of program types to program performance so that, for programs with higher goal ambiguity, program type will be negatively related to program performance.

METHODOLOGY

Data and Sample

The programs analyzed represent a variety of federal programs that are different from each other in various ways and represent an array of goals and functions. OMB (2006) argued that the PART data represent efforts to assess and improve program performance in order to achieve better results, by assessing the program's purpose and design, strategic planning, management, results/accountability, the overall assessment rating, performance measures, and program improvement plans. OMB documents also state that "we use a standard questionnaire called the Program Assessment Rating Tool, or PART, for short. The PART asks approximately 25 important, yet common sense, questions about a program's performance and management..... Once each assessment is completed, we develop a program improvement plan so we can follow up and improve the program's performance" (OMB, 2006). These PART data provide the necessary information that this study analyzes: program types, program performance, and program performance goals.

Using the PART data provides several advantages that help to alleviate methodological complications that have often hindered previous studies on goals.⁶ The first advantage is the standardization of terms, which addresses a frequent problem in gathering organizational data from archival sources (Van de Van & Ferry, 1980; Chun & Rainey, 2005a). All federal agencies prepared the data for PART under the same guidelines provided by the OMB (Chun & Rainey, 2005a). Additionally, the OMB made it clear that federal programs should describe their goals based on statutory mandates (OMB, 2006). This links goal statements more directly to statutes than in cases where researchers have had to rely on goals identified indirectly from formal mandates (e.g., Perry, Thompson, Tschirhart, Mesch, & Lee 1999; Meyers, Riccucci, & Lurie 2001).

The sample for this study included all the federal programs included in the OMB PART data for both 2006 and 2007. The sample size is 761 programs.⁷ This study used the items in the PART data for the dependent variable (program performance), independent variables (program types), and a moderator (program target-specification goal ambiguity).

Variables

⁶ In relation to validity of the PART data, there are two conflicting arguments. The PART data has been criticized by the OMB Watch, a nonprofit organization that has been monitoring the PART process: “It is hard to determine whether the PART is measuring programs accurately, consistently and in a value-neutral way. Even if it achieves these, there has been little attention paid to the question of whether the PART is measuring the right kinds of outcomes” (Radin, 2006: 125).

On the other hand, PART is also recognized as addressing what was believed to be two important shortcomings in the GPRA law. One of the two is that “to respond to the “one size fits all” criticism of GPRA, PART set up a “types of program” format with each agency slotted into one of the following types of programs: direct federal, competitive grant, block and formula grant, regulatory, capital assets and service acquisition, credit, research and development programs... Furthermore, PART has received some good reviews. In the summer of 2005 Harvard University announced that PART was one of ten recipients of its innovations in American Government Award”(Frederickson & Frederickson, 2006: 42).

⁷ Total number of the federal programs in 2006 PART is 784. 10 programs were left out, since they did not show any performance goals in 2006 or 2007 PART data. We also left out 6 programs, because they were not included in the 2007 PART data. In addition, one program was excluded in the regression model, since it was not possible to classify the program due to being coded as a ‘mixed program’ in the type1 category of PART. In the process of analysis, six programs were dropped due to missing values. Therefore, in this research, the sample size is 761.

Program Performance as the Dependent Variable. The OMB (2006) argued that the PART is used to evaluate four dimensions of federal program performance: purpose and design, strategic planning, management, and results/accountability. As described above, the four sections have different weights for the calculation of the overall program assessment rating as the dependent variable in this study. Each PART questionnaire includes 25-30 questions that are divided into the four sections.⁸

Federal Program Type. As described above, PART includes the following types of programs: direct federal, credit, research and development, block and formula grant, competitive grant, capital assets and service acquisition, and regulatory. This classification of U.S. federal programs was provided by OMB. This study followed the OMB classification in order to reflect the current reality of federal program types. That is, all the types of federal programs are included in the present research.

Target-specification Goal Ambiguity. Performance assessment systems, such as PART, assume that performance goals of individual programs need to be specified quantitatively or qualitatively. That is, they should include concrete targets. For some programs, the PART reports state targets for some of the goals (e.g., for Hazardous Materials Transportation Safety-Emergency Preparedness Grants Assessment in the Department of Transportation, a target for 2007 was “the number of serious hazardous materials incidents is 466.”). The PART reports for a number of programs; however, they report no such information for some of their goals (e.g., for Weed and Seed Assessment program in the Department of Justice, the objective, such as “percent reduction in homicides per site funded under the Weed and Seed program” has not provided a concrete target since 2004 and some objectives in different programs do not have any

⁸ For the question items for each performance dimension, refer to Moynihan’s (2008, 221-224) book.

target). This implies that officials representing those programs cannot state such targets because of various difficulties in doing so, or exert no effort to do so. PART assumes that, with goals represented by concrete targets and actual achievements, individual programs can be appraised, and they should receive budget increases according to the degree of achievement of performance goals.

Target-specification goal ambiguity refers to this degree of specificity in the expression of program goals. It represents the level of interpretive leeway available in deciding on the precise quantity and/or quality of work for achieving the program's performance goals. In other words, this concept of goal ambiguity reflects the presence of concrete targets for program goals. It was measured by the proportion of performance objectives without concrete targets to the total number of performance objectives in individual programs.

Assessment Year. This study used the latest assessment year of each program, as reported in the PART data.

Program Size. This study followed the same measurement method that GAO (2004) and Gilmour and Lewis (2006) used for program size. They divided the program size into three categories, including small, medium-sized, and large federal programs, based on the size of program budgets, although this study uses different sizes for the categories because of the different years covered by the data this research uses. The base category, small federal programs, included those with less than \$65 million budget allocations. Medium-sized programs ranged from \$65 million to less than \$400 million, and large programs included those with budgets of over \$400 million.

RESULTS

[Insert Table 1 about here]

Table 1 provides the descriptive statistics of the variables in this study. Table 2 describes the correlations among the variables. The largest correlation is $-.467$. In addition, the highest variance inflation factor value and the average in the three models were 5.49 and 2.96 , respectively. This indicates that this study does not have a serious problem of multicollinearity. Furthermore, the results of tests on heteroskedasticity for all the models did not provide any evidence of serious problems in terms of the regression assumption.

[Insert Table 2 about here]

Table 3 provides the results of the moderated hierarchical regression analyses with program performance as the dependent variable. The goodness of fit of Model 4 as the full model was $.2964$. In addition, all the models were statistically significant ($p < 0.001$). Model 1 included only control variables, program assessment year, and program sizes. Six program types were included in Model 2, where block formula programs were omitted as a reference group. Step 3 included only the program target-specification goal ambiguity. Model 4, as the full model, included hypothesized interactions between program goal ambiguity and the six program types.

[Insert Table 3 about here]

Hypothesis 1 predicted that different types of federal programs would have different effects on program performance. According to Model 4, all the program types were positively associated with program performance. In detail, direct federal programs had higher performance than block formula grant programs which were reference groups ($\beta = .293, p < .001$). In the case of credit programs, their performance scores were statistically significant and higher than those of block formula grant programs as a reference group ($\beta = .116, p < .05$). These results can be applied to the other program types: research and develop programs ($\beta = .329, p < .001$), competitive grant programs ($\beta = .151, p < .05$), capital assets and service acquisition programs

($\beta=.171, p<.001$), and regulatory programs ($\beta=.243, p<.001$). Among these program types, the impact of research and development programs on program performance was the highest. Therefore, hypothesis 1 was supported. That is, different types of programs have different levels of performance.

In relation to program target-specification goal ambiguity, this study hypothesized that program goal ambiguity would be negatively associated with program performance. In addition, this one variable accounted for 13.5 percent of variation in program performance as the dependent variable. According to the results in Model 4, program target-specification goal ambiguity had a significant and negative influence on program performance ($\beta=-.258, p<.01$). Thus, hypothesis 2 was also supported.

Hypothesis 3 predicted that program target-specification goal ambiguity would moderate the relationship between program types and program performance. As shown in Model 4, control variables, main effects, and interactions accounted for 30 percent of the variance in program performance. Results revealed three significant program types by the goal ambiguity interactions: direct federal programs ($\beta=-.094, p<.10$), competitive grant programs ($\beta=-.148, p<.05$), and regulatory programs ($\beta=-.084, p<.10$). In more detail, direct federal programs and competitive grant programs had lower program performance than do block formula grant programs, when their target-specification goal ambiguity was higher than that of block formula grant ones. When regulatory programs had higher goal ambiguity, their performance scores were also lower than those of block formula grant programs. In the other cases, target-specification goal ambiguity also had a negative influence on the relationship between program types and program performance, but the interactions between goal ambiguity and program types were not statistically significant. Therefore, hypothesis 3 was partly

supported. Furthermore, the results showed that program target-specification goal ambiguity was a moderator between program types and program performance since it changed the direction and degree of the relationship between the independent variables and the dependent variable from the positive to the negative.

DISCUSSION AND CONCLUSION

Although many empirical studies have explored the factors that influence program performance, research has been scarce or nonexistent on program types and the intervening process of goal ambiguity between program types and program performance. In order to fill these research gaps, this study examines the effects of program types and program target-specification goal ambiguity on program performance in the current federal programs and the moderating effects of the program goal ambiguity on the relationships between program types and program performance. This analysis of the data for 767 federal programs confirms the hypotheses about these relationships. The results show that different program types have different mean levels of PART program performance scores. The results also show that a particular type of goal ambiguity, “program target-specification goal ambiguity” have a significant and negative relationship with program performance scores, and that program target-specification goal ambiguity is a moderator between program types and program performance. That is, within the different categories of program type, programs higher on target specification goal ambiguity received lower program performance scores.

The results can support development of both theoretical and practical decisions about performance evaluation for government activities. More significantly, the observations about program types and the moderating effects of program goal ambiguity supported in this study are

arguments that abound in the literature and resound in the work of prominent scholars, but that have virtually never received the analytical attention provided in the present large-sample empirical study and the few other recent ones cited here.

The present study shows that the six program types in the PART data have different effects on program performance, as expected. The possible reasons for this result can come from the arguments of some public policy or management scholars that different policies face different political environments and complexity for their success (Lowi 1972; Kettl 1993; Ripley and Franklin 1982; Matland 1995). We can expect that certain aspects of policy process will be similar within the same type of programs and will be different systematically across the program types (Ripley and Franklin 1982). The aspects which we expect make the success of programs different can include the identity of primary participants in policy process (such as the levels of bureaucracy, beneficiaries, clients, and Congress), the characteristics of the relationships among primary actors, the relative difficulty of achieving successful implementation, and the critical process processes for achieving success (Ripley and Franklin 1982, 86; Kettl 1993). Further research on these different aspects for successful program performance is clearly needed to make more refined explanations for the results of this study and for better management approaches depending on program types.

In relation to reform efforts or strategies in the public sector, Bozeman (2000) argues that reforms did not receive a successful assessment, because they did not succeed in considering differences among programs and agencies. For higher program performance, therefore, the current administration should use different approaches on the many federal programs by considering the differences among federal programs managed by the same agencies or different

agencies. Different management strategies depending on the program types can lead to improved performance or successful governmental reforms.

In terms of program goal ambiguity, as argued in the introduction, prominent scholars' claims about the important role of goal ambiguity in management of government agencies make the topic central to public management. In spite of this centrality, very little large sample empirical research has provided evidence about the goal characteristics of federal agencies and programs, or analysis of the goal characteristics. In the public program level, some policy scholars have argued that goals embedded in programs are ambiguous, since "in the zeal to pass programs supporters often claim too much in the way of goals, inflating expectations of what the program can accomplish" (Ripley and Franklin 1982, 22; Matland 1995). In order to examine the impact of program goal ambiguity on program performance, the present research measures program target-specification goal ambiguity from the PART data. According to the OLS results in this study, this new concept of program goal ambiguity has a strong main effect on the overall program performance scores and some moderating effects on the relationships between program types and the performance. These results imply that program makers or managers should try to make targets for performance goals or make the targets more specific in order to attain higher program performance. That is, the results of this study practically and empirically show the importance of specifying program goals for higher performance (Salamon, 2002).

In conclusion, this study suggests the clarification of program goals as one of the important management strategies for higher program performance by providing the evidence of negative moderating effects of goal ambiguity in the situation in which different program types show systematically significant variations in performance. In the practical perspective, these

results are needed to be considered, since “the greater the clarity (of the goals) the more likely that the implementers will work effectively to bring about successful implementation” (see Van Meter and Van Horn, 1975: 461-462).

Figure 1. The Relationship among Program Types, Goal Ambiguity, and Performance

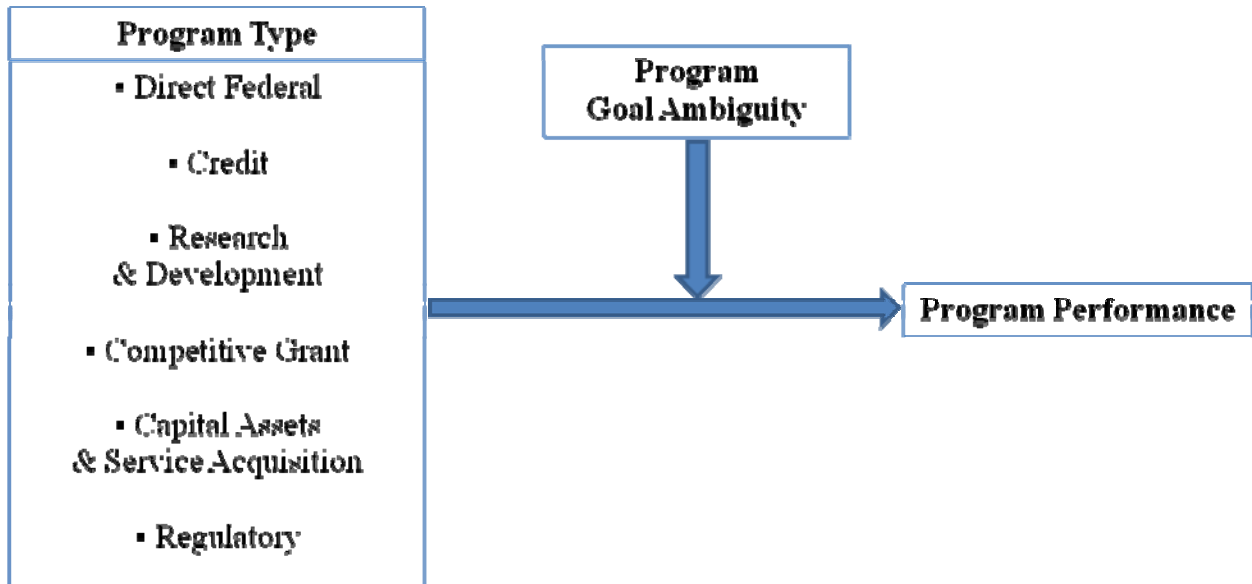


Figure 2. The Salient Factors Surrounding Program Implementation

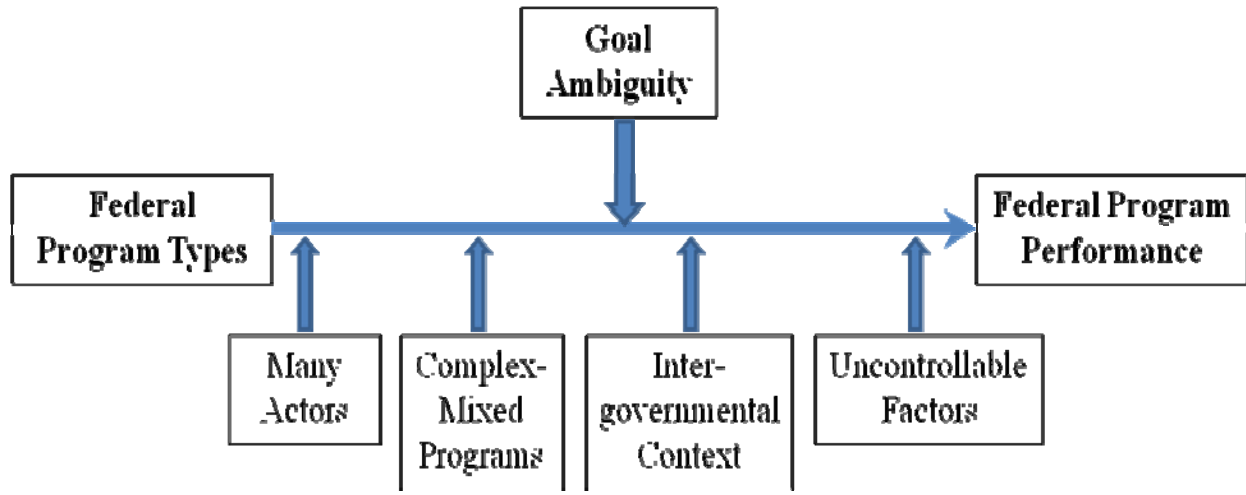


Table 1. Descriptive Statistics of Dependent, Independent, and Moderating Variables

Variables	Unit	Mean	Standard Deviation	Min	Max
Program Types					
Direct Federal	(1, 0)	0.311	0.463	0	1
Credit	(1, 0)	0.038	0.192	0	1
Research & Development	(1, 0)	0.120	0.325	0	1
Block/Formula Grant	(1, 0)	0.171	0.377	0	1
Competitive Grant	(1, 0)	0.185	0.389	0	1
Capital Assets & Service Acquisition	(1, 0)	0.095	0.293	0	1
Regulatory	(1, 0)	0.080	0.272	0	1
Moderator					
Target-Specification Ambiguity	Proportion	0.313	0.332	0	1
Dependent Variable					
Overall Program Performance	Percentage	66.284	17.905	13.9	100

Table 2. Correlation Results

	1	2
1.Program Performance	1.00	
2.Goal Ambiguity	-.467***	1.00
3. Direct Federal	.136***	-.218***
4. Credit	.004	.022
5.R & D	.204***	-.068*
6.Block/Formula Grant	-.219***	-.131***
7.Competitive Grant	-.222***	.236***
8.Capital Assets & Service Acquisition	.047	-.024
9.Regulatory	.093***	-.055

*Significant at .10; **Significant at .05 level; ***Significant at .01 level

Table 3. Hierarchical Regression Analyses for Testing Moderating Effects of Program Goal Ambiguity on the Relationship between Program Types and Program Performance

Independent Variables	Dependent Variable : Program Performance							
	Model 1		Model 2		Model 3		Model 4	
	T-Ratio	Beta	T-Ratio	Beta	T-Ratio	Beta	T-Ratio	Beta
Step 1: Control Variables								
Assessment Year	1.61 (0.657)	0.058	1.18 (0.616)	0.040	1.20 (0.564)	0.038	1.03 (0.568)	0.033
Medium –Size Programs	3.31 (1.538)	0.135****	2.93 (1.444)	0.112***	1.98 (1.331)	0.070**	1.84 (1.336)	0.065*
Large –Size Programs	3.56 (1.616)	0.147****	3.33 (1.571)	0.133****	1.78 (1.457)	0.066*	1.73 (1.462)	0.065*
Constant	58.796							
Step 2: Program Type Effects								
Direct Federal (DF)			6.77 (1.813)	0.317****	4.62 (1.702)	0.204****	4.65 (2.438)	0.293****
Credit (CR)			2.63 (3.408)	0.096***	2.47 (3.127)	0.083**	2.35 (4.617)	0.116**
Research and Development (R&D)			8.26 (2.279)	0.341****	7.23 (2.111)	0.277****	6.20 (2.925)	0.329****
Competitive Grant (CG)			0.68 (2.053)	0.030	1.17 (1.883)	0.048	2.33 (2.984)	0.151**
Capital Assets and Service Acquisition (CA)			4.38 (2.438)	0.175****	3.74 (2.244)	0.137****	3.29 (3.172)	0.171****
Regulatory (RG)			5.84 (2.600)	0.231****	4.68 (2.407)	0.171****	4.76 (3.367)	0.243****
Constant	51.614							
Step 3: Program Goal Ambiguity Effect								
Target-Specification Goal Ambiguity (SPGA)					-11.96 (1.773)	-0.393****	-3.58 (3.892)	-0.258***
Constant	62.011							

Step 4: Moderating Effects of Target-Specification Goal Ambiguity

DF*SPGA					-1.77 (5.396) -0.094 *
CR*SPGA					-0.82 (9.441) -0.040
R&D*SPGA					-1.07 (6.338) -0.052
CG*SPGA					-2.09 (5.247) -0.148 **
CA*SPGA					-0.60 (6.772) -0.029
RG*SPGA					-1.81 (7.943) -0.084 *
Constant					59.440
F-Value	5.73****	15.30****	30.69****	19.59****	
R^2	0.0222	0.1550	0.2904	0.2964	
ΔR^2		0.1388	0.1354	0.0064	

*Significant at .10; **Significant at .05 level; ***Significant at .01 level; ****Significant at .001 level; Sample Size=761 (Federal Programs)

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