Web Appendix for "Testing Pendleton's Premise: Do Political Appointees Make Worse Bureaucrats?"

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This appendix includes the auxiliary models mentioned in the text (Tables 1-5). It also includes and expanded discussion of three difficulties in model estimation that require further elaboration: missing data, potential endogeneity, and the possibility that appointees want programs to fail.

The models in Tables 1-5 are as follows:

Table 1—Alternate Specifications

Model 1—In Model 1 I include an ordinal measure of presidential influence where agencies in the Executive Office of the President are coded with a 0, agencies in the cabinet a 1, independent administrations a 2, independent commissions a 3, and other agencies including the District of Columbia, government corporations, and joint federal-state agencies a 4. This model confirms what is reported in the text, appointee-run programs get lower PART scores. I could not reject the null that the coefficient on this indicator was 0.

Model 2—In Model 2 I interact the ordinal measure of presidential influence with the appointee indicator to see whether the impact of appointees on management differs depending upon the degree of insulation. This model confirms what is reported in the text, that appointee-run programs get systematically lower management grades. I could not reject the null that the coefficient on the main effect and the interaction were 0.

Model 3—In Model 3 I measure policy content of program with an indicator for unified Democratic control at time of creation. I could not reject the null that this coefficient was 0.

Model 4—I have replicated the analysis in the text with program categorical grades rather than total PART score. While appointees get lower average program grades, regression analyses using program grades are estimated less precisely. I cannot reject the null hypothesis that federal programs run by appointees get the same categorical grades as those run by careerists.

It should be noted that in general, categorical grades provide less information than numerical scores and are more prone to political manipulation. As such, I focus on PART scores rather than the categorical grades.

Model 5—I estimate a model that includes managers with atypical appointment authorities. Of the 242 bureau chiefs 2 had atypical appointment authorities (i.e., Schedule C, presidential appointee without Senate confirmation (PA)). In the analysis in the text I excluded these 2 managers. In Model 5 I include them. The results confirm what is reported in the text.

Table 2—Alternate specifications including measures of employment, politicization, and thickness.

Bureaus also vary by employment, the thickness of the management hierarchy (number of managers), and the degree of politicization (number of appointees/number of managers). I do not include these controls in the main specifications since these variables do not match up neatly with federal programs. This is due to the fact that what is defined as a bureau by OMB, the producer of the PART score, and the Office of Personnel Management, the provider of federal workforce statistics, does not always correspond. In some cases, estimating models with all the controls reduces the sample size by close to 40%. As a consequence, the coefficients are estimated less precisely. The results, however, generally confirm what is reported in Table 2. Source: U.S. Office of Personnel Management, *Fedscope* website (www.fedscope.opm.gov).

Table 3—Models where individual managers are the unit of analysis.

I estimate models using each bureau chief as one observation and the average score of the bureau chief as the dependent variable. The results are generally stronger than what is reported in the text.

Table 4—Models including 23 departmental fixed effects.

I reestimate the basic models from Tables 2-3 with fixed effects for department or large agency. The results are similar to what is reported in the text with small differences. In the model evaluating whether appointee-run programs get lower PART scores the coefficient estimate is larger and estimated more precisely than the model in the text. In the model evaluating which manager background characteristics influence PART scores, the coefficient on bureau experience is smaller and now significant at only the 0.10 level in a two-tailed test. The coefficient on manager tenure is smaller and no longer significant ($p<0.18$).

A. Missing Data

Some reviewers have expressed concern about missing data and its influence on model estimates. One has recommended multiple imputation as a solution to this problem. In the end I do not include estimates from the imputed data in the text. This is not because I dislike the estimates. I include them in this appendix. Rather, I do not include them because I cannot defend the assumptions I would have to make in order to use this imputed data. Since some readers may feel more comfortable making these assumptions, I happily make these estimates available. Let me explain in more detail my objections to imputing data.

First, the presence of missing data makes it *less* likely that I will find a relationship between appointees and PART scores. To see this, consider that the missing data stem almost exclusively from the lack of employment, budget, or start year data (i.e., information about the politics at the time the program was created). The reason for this is that what the Office of Management and Budget (OMB) considers an agency does not always coincide with what the Office of Personnel Management (OPM) decides is an agency. For example, OMB identifies PART scores and budgets for programs and bureaus in the Department of Energy (DOE) but OPM does not collect employment data for DOE at the bureau level.[1] This means I have PART scores for programs in DOE but I do not have employment data. The other primary reason for missing data is that there

[1] OPM does, however, collect employment data for bureaus in all other departments except the Department of State.

was no clear identifiable start date discernible for some programs evaluated in the PART process. For these cases I could not get data on the politics at the time the program was created (i.e., created under divided government, created under Democratic president). This means that cases with missing data are likely to be smaller than other cases, at a level in the bureaucracy where programs are more likely to be headed by career managers, and less likely to have clear political origins. They are systematically different from the cases without missing data. Indeed, those programs for which I have PART scores but not employment, budget, or start year data both have higher PART scores (59.40 vs. 64.47) and are more likely to be managed by careerists (9.8% versus 22.5%) than those programs for which there is no missing data. So, if anything, using list-wise deletion *underestimates* the strength of the relationship between careerist management and PART scores.

This has been verified by estimating models including indicators for those cases with missing data. In these models (Table A1), the coefficients on the missing value indicator were uniformly positive and in some cases I could reject the null that the coefficients were 0. This demonstrates that the cases with missing values have higher PART scores than non-missing cases. These findings, coupled with evidence that missing data are more likely to be headed by career managers, demonstrate that the missing data either does not bias the estimates or it biases them against my findings. These reasons and relationships provide solid evidence for why the Missing At Random (MAR) assumption that multiple imputation assumes is not satisfied in the data I analyze (King et al. 2001).

Second, replacing missing values through imputation necessitates the acceptance of very strong assumptions about the data. Most importantly, to impute one has to assume that the missing data can be estimated in an unbiased fashion-- more precisely in a linear fashion with normally distributed errors -- from the relationships in the non-missing data. This is acceptable if the missing data look like the non-missing data. But, if the missing data look like the non-missing data then why impute in the first place? The only benefit is an efficiency gain with imputation (i.e., smaller standard errors), but this does not affect the substantive conclusions I reach.

One might worry about omitted variable bias, but as I argue above, the cases without missing data are the cases that are the largest, most widely recognized, and most salient. In other words, focusing only on those programs and agencies recognized by both OMB and OPM with clear political origins are exactly the sample of most interest. Including the additional agencies by imputation risks incorrect parameter estimates because it pools across disparate observations and assumes that the covariate relationships in evidence in one are identical to those in the other. Imputation is not always better and it entails making tradeoffs. I can evaluate these tradeoffs and decide not to impute because I know my data better than Amelia knows my data.

If the missing data do not look like non-missing data, how can we have confidence that the newly imputed values of the data are unbiased? Using the observed data to predict the unobserved data will generate inaccurate estimates of the missing data. These inaccurate imputed values will then be used to generate estimates that we care about. This is problematic. Consider an illustrative example. If we wanted to find a relationship between national education spending and GDP worldwide and only had good data from Europe but not Africa, it would be difficult to impute data for Africa based upon observed data from European countries. A better

choice would be to 1) estimate the models with list-wise deletion and make our most confident conclusions about the population of agencies for which we have data, European countries, or 2) estimate pared down models with indicators for those countries where data is missing so that the potential bias from the missing data can be estimated directly. These are the approaches I take here. I use list-wise deletion and note that I have the most confidence in these results for those programs and agencies that have data collected by both OMB and OPM and have clear political origins. I also discuss the likely effects for the cases with missing data based upon the estimates in the pared down models.

Despite my objections to using imputed data, I have reestimated the models in Tables 2-4 in the text with the imputed data (Tables A2-A4). The results are slightly less dramatic but substantively similar as you can see. The primary differences are as follows:

- Table 2—The coefficient estimates on appointee management are slightly smaller but estimated more precisely and still significant. The coefficient estimate on Democratic president is smaller and insignificant.

- Table 3—The coefficient on bachelors degree is smaller but now significant at the 0.05 level in both models. The coefficients on previous bureau experience are slightly smaller but estimated more precisely and still significant. The coefficients on manager tenure are slightly smaller but now both significant at the 0.05 level. The effects of tenure also appear more linear now. That is, longer tenure always helps managers rather than diminishing in its influence over time. The coefficient on Democratic president is smaller and insignificant.

- Table 4—The estimates on graduate education are smaller in one case and larger in another but the standard errors are smaller on these coefficients and they are now significant. The coefficient on previous work in the White House is still positive but no longer significant. The coefficient on work in Congress is smaller but still significant. The coefficient on previous public management experience is smaller but is now significant at the 0.05 level whereas it was only significant at the 0.10 level before.

In total, the coefficient estimates that are the focus of the paper are estimated more precisely but are in some cases smaller. If we trust the estimates based upon imputed data, then we should be more confident in overall the conclusions of the paper but also believe that the effects of these key variables on PART scores is somewhat smaller.

B. Endogeneity

Whether or not a program is administered by a careerist or an appointee may be endogenous. In other words, the same variables that predict the PART score could also predict whether a bureau is headed by a careerist or an appointee. For example, it is possible that all difficult-to-manage programs are run by appointees and all easy-to-manage programs are run by careerists. If this is the case, any relationship between appointment status (appointee or careerist) and PART score could be spurious because the ultimate cause of the low PART score would be the inherent difficulty of the program itself, not whether the manager is an appointee or a careerist. While it is

not clear that appointees are more likely to be chosen to administer the most-difficult programs, this concern must be taken seriously.[2] All models attempt to control for the management environment, including the characteristics that would make a program or bureau hard or easy to manage. I also estimated a set of instrumental variables regressions where the appointment authority of the bureau chief is estimated along with the effect of appointment authority on PART score. In these regressions I could not reject the null hypothesis that the original OLS coefficients were consistent. As such, I report the OLS estimates.[3]

A related problem is that estimates of the influence of tenure on program performance could be endogenous. If a program is very difficult to manage, this could influence not only how long a manager serves, but also the program's PART score; thus, it can be difficult to parse out the distinct influence of tenure on the PART score. I estimated a model where tenure was instrumented and could not reject the null hypothesis that the original OLS estimates were consistent. The difficulty in this case was finding regressors that predict tenure but not PART score. Fortunately, the natural sequencing of PART evaluations provides two such regressors. Some programs were evaluated in 2002 (for the FY 2004 budget), some in 2003 (for the FY 2005 budget), and some in 2004 (for the FY 2006 budget). If the selection of programs was indeed random, then when the programs were evaluated should not matter for the PART score but *should* matter for tenure, since tenure for bureau chiefs is shorter the earlier they are evaluated. I used both a Hausman test and the auxiliary regression approach described to determine whether the instrumental variables specification/model was appropriate for the main text.

[2] It is difficult to know whether careerists or appointees would be preferred in cases where programs are hard to manage. Congress and the president may be more likely to give responsibility for managing difficult programs to careerists precisely because the programs are challenging to manage. On the other hand, politicians may assign political appointees to run politically controversial programs, and these controversial programs may be inherently harder to manage.

[3] In order for the models to be identified one must include exogenous regressors that predict whether a bureau chief is a careerist or an appointee but not PART score directly. I include several exogenous regressors in the instrumental variables specifications. To begin, consider that whether a bureau chief is an appointee or a careerist has a lot to do with the politics at the time a program is created in addition to the choices of the current administration (Epstein & O'Halloran 1999; Lewis 2003, 2005c; McCarty 2004; Moe 1989; Zegart 1999). As such, with the help of a colleague, I found the date each program was created and coded each program according to political factors at the time it was created. Many aspects of the political environment at the time the program was created should help predict whether the program is administered by an appointee or a careerist. First, presidents add more appointees in their first terms and in certain years within those terms. I include indicator variables both for second term and years within a term. I include an indicator for whether an agency is created at the start of a new administration (0,1). I also include an indicator for whether the program was created during a war (0,1). During times of war, presidents are given more control over the bureaucracy. To account for the choices of the current administration, I include indicators for when the program was evaluated by the Bush administration. The probability that a program is administered by an appointee should vary depending on when it is evaluated. There are more appointees in the administration in the second year, for example, than in the third or fourth years. First-stage estimates suggest that the year of the current president's term and the newness of the administration are significantly related to whether or not a program is administered by an appointee. War, second terms, and periods of divided government are close to significance. After model estimation I used two methods to determine whether an instrumental variables approach was necessary. The first was a simple Hausman test. I could not reject the null hypothesis that the coefficients were equal. For the second test, I regressed whether or not the bureau chief was a careerist (0,1) on the exogenous regressors. I then obtained predicted values and inserted those into the original OLS regression. I could not reject the null hypothesis that the coefficient on these fitted values was equal to 0.

It is possible that the instruments I chose are not completely independent of the PART score. For example, if people learn during the PART scoring process how to better fill out the worksheet, the PART score may be correlated with the year of evaluation. If the instruments are not exogenous, then the estimates of the instrumental variables specifications are questionable, and thus some caution should be used when interpreting the coefficient estimates on tenure.

C. Do Appointees Want Programs to Fail?

It is also possible that appointees want programs to fail. This would drive PART scores down but not because of a lack of competence. To account for this possibility I control for program content using indicators for program type (regulatory, block grant, etc.), department, and partisanship of the Congress and president at the time the program was created. I also estimate models on split samples based upon program content to see whether the influence of appointees on performance is greater for programs Republicans are less likely to support. Since PART scores are produced by a Republican administration, political appointees should be more likely to want to run down or eliminate programs created by Democrats. This implies that the coefficient on appointee management will be larger and negative when programs created under unified Democratic control are included. I find just the opposite. When I *exclude* these programs, the coefficient on appointee management is much larger and negative (Table C.1).

Table 1 (Reviewer-only). Federal Program PART Score by Manager Type—Alternate Specifications

	W/ordinal measure of insulation	W/ordinal measure insulation, interaction	W/ unified Democratic control	W/ categorical grade for DV	Managers in excepted service included
Appointment Authority					
Appointee (0,1)	-4.46**	-8.79*	-5.26**	-0.14	-4.91**
	(2.05)	(4.69)	(2.17)	(0.16)	(2.16)
Program Characteristics					
Ln(Program Budget)	0.69	0.71	0.61	0.01	0.54
	(0.51)	(0.51)	(0.53)	(0.03)	(0.50)
Block/Formula Grant (0,1)	-15.66**	-15.66**	-16.47**	-0.70**	-15.61**
	(3.38)	(3.36)	(3.68)	(0.25)	(3.42)
Capital Assets and Service Acquisition (0,1)	-10.30**	-10.36**	-10.76**	-0.58**	-10.81**
	(3.43)	(3.44)	(3.92)	(0.27)	(3.25)
Competitive Grant (0,1)	-15.74**	-15.79**	-17.14**	-0.63**	-15.90**
	(3.09)	(3.08)	(3.26)	(0.23)	(3.11)
Credit (0,1)	-8.62	-8.54	-8.28	-0.59	-9.24*
	(5.30)	(5.33)	(5.82)	(0.38)	(5.25)
Direct Federal (0,1)	-6.17**	-6.36**	-9.83**	-0.26	-6.62**
	(3.00)	(3.01)	(3.26)	(0.24)	(3.07)
Mixed (0,1)	-12.93**	-12.89**	-12.33**	-1.41**	-12.75**
	(4.78)	(4.76)	(4.86)	(0.24)	(4.90)
Regulatory (0,1)	-3.95	-3.86	-5.57	-0.33	-4.78
	(3.58)	(3.58)	(3.84)	(0.29)	(3.61)
Bureau Characteristics					
Fixed Term (0,1)	--	--	11.87**	0.65**	10.01**
			(3.72)	(0.31)	(3.77)
Commission (0,1)	--	--	1.59	0.02	3.12
			(4.97)	(0.34)	(4.44)
Insulation (0-4)	2.54	-0.31	--	--	--
	(1.56)	(3.01)			
Appointee*Insulation (0-4)	--	3.31	--	--	--
		(3.27)			
# Programs Evaluated	-0.65**	-0.65*	-0.54	-0.04*	-0.59*
	(0.33)	(0.33)	(0.34)	(0.02)	(0.33)
Political Characteristics and Constant					
Created Under Unified Democratic Control (0,1)	--	--	0.78	--	--
			(1.13)		
Constant	70.36**	74.09**	73.44**	--	73.83**
	(4.41)	(5.42)	(4.23)		(3.92)
N (Observations, Managers)	560, 230	560, 229	467, 210	558	563, 231
F, X^2	5.77**	5.31**	5.36**	197.98**	5.71**

Note: **significant at the p<0.05 level; *significant at the p<0.10 level in two-tailed test. Robust standard errors adjusted for clustering on managers reported. Model 4 is an ordered probit model (cut points: -2.50; -0.73; -0.18; 0.79).

Table 2 (Reviewer-only). Federal Program PART Score by Manager Type (Appointed v. Career) Including Measures of Bureau Employment, Politicization, and Thickness

Appointment Authority		
Appointee (0,1)	-5.30**	--
	(2.64)	
Senate confirmed appointee (PAS)	--	-5.51**
		(2.71)
SES appointee (NA)	--	-4.41
		(3.24)
Program Characteristics		
Ln(Program Budget)	0.70	0.69
	(0.70)	(0.70)
Block/Formula Grant (0,1)	-20.24**	-20.14**
	(4.36)	(4.41)
Capital Assets and Service Acquisition (0,1)	-18.46**	-18.36**
	(5.17)	(5.20)
Competitive Grant (0,1)	-20.11**	-20.21**
	(3.81)	(3.84)
Credit (0,1)	-11.52	-11.85*
	(6.94)	(6.83)
Direct Federal (0,1)	-18.40**	-18.37**
	(4.02)	(4.05)
Mixed (0,1)	-21.03**	-21.12**
	(5.99)	(5.98)
Regulatory (0,1)	-13.73**	-13.78**
	(4.75)	(4.81)
Bureau Characteristics		
Fixed Term (0,1)	11.33**	11.43**
	(4.65)	(4.68)
Commission (0,1)	1.55	1.75
	(7.63)	(7.67)
# Programs Evaluated	-0.63*	-0.66**
	(0.32)	(0.31)
Ln(Employment)	-1.65	-1.62
	(1.59)	(1.57)
% Managers Appointed	-0.56**	-0.55**
	(0.12)	(0.12)
% Managers Appointed^2	0.003**	0.003**
	(0.001)	(0.001)
Ln(Managers)	0.48	0.48
	(1.70)	(1.69)
Political Characteristics		
Created Under Divided Government (0,1)	-2.79	-2.77
	(2.31)	(2.31)
Created Under Democratic President (0,1)	-3.44	-3.47
	(2.57)	(2.56)
Constant	97.05**	96.87**
	(8.51)	(8.56)
N (Observations, Managers)	328, 126	328, 126
F (18, 125; 19, 125)	7.08**	6.70**

Note: **significant at the p<0.05 level; *significant at the p<0.10 level in two-tailed test. Robust standard errors adjusted for clustering on managers reported.

Table 3 (Reviewer-only). Average Federal Program PART Score by Manager Type Where Individual Managers are the Unit of Analysis

Appointment Authority			
Appointee (0,1)	-6.53**	--	--
	(2.54)		
Senate confirmed appointee (PAS)	--	-5.84**	--
		(2.59)	
SES appointee (NA)	--	-8.11**	--
		(3.84)	
Bureau Chief Characteristics			
Bachelors (0,1)	--	--	8.69
			(7.25)
Masters (0,1)	--	--	3.70
			(7.00)
PhD (0,1)	--	--	6.45
			(7.26)
Worked in Another Department (0,1)	--	--	0.14
			(2.46)
Private Management Experience (0,1)	--	--	0.72
			(2.41)
Worked in White House (0,1)	--	--	-0.88
			(4.39)
Worked in Congress (0,1)	--	--	1.73
			(3.04)
Bureau Experience (0,1)	--	--	5.79**
			(2.52)
Months Serving as Bureau Chief (0 to 182)	--	--	0.15
			(0.12)
Months Serving as Bureau Chief^2	--	--	-0.002
			(0.001)
Previous Public Management Experience (0,1)	--	--	2.50
			(2.91)
Bureau and Program Characteristics			
Fixed Term (0,1)	9.67**	9.38**	10.32**
	(4.03)	(4.08)	(4.09)
Commission (0,1)	1.54	0.81	0.74
	(4.79)	(4.80)	(4.91)
# Programs Evaluated	-1.00**	-0.99**	-1.22**
	(0.50)	(0.50)	(0.51)
Constant	71.09	70.86**	55.11**
	(2.23)	(2.23)	(7.38)
N (Managers)	239	239	229
F	5.09**	4.02**	1.90**

Note: Dependent variable is average total weighted PART score for each manager. **significant at the p<0.05 level; *significant at the p<0.10 level in two-tailed test.

Table 4 (Reviewer-only). Federal Program PART Score Including Department Indicators.

Appointment Authority		
Appointee (0,1)	**-6.08** **(2.08)**	--
Bureau Chief Characteristics		
Bachelors (0,1)	--	4.28 (4.38)
Masters (0,1)	--	0.07 (3.88)
PhD (0,1)	--	0.92 (4.48)
Worked in Another Department (0,1)	--	-1.95 (2.34)
Private Management Experience (0,1)	--	-1.59 (1.95)
Worked in White House (0,1)	--	3.24 (3.23)
Worked in Congress (0,1)	--	1.84 (2.22)
Bureau Experience (0,1)	**--**	**3.48*** **(2.05)**
Months Serving as Bureau Chief (0 to 182)	**--**	**0.15** **(0.11)**
Months Serving as Bureau Chief^2	**--**	**-0.001** **(0.001)**
Previous Public Management Experience (0,1)	--	-0.15 (2.29)
Bureau Characteristics		
Fixed Term (0,1)	9.25** (3.99)	9.18** (4.14)
Commission (0,1)	1.40 (5.85)	3.30 (6.14)
# Programs Evaluated	-0.04 (0.29)	-0.06 (0.31)
Ln (Program Budget)	0.40 (0.47)	0.67 (0.48)
Constant	82.26** (5.08)	71.63** (7.54)
N	558	549

Note: **significant at the 0.05 level, *significant at the 0.10 level in two tailed test. Program type and department indicator estimates omitted.

Table A1. Federal Program PART Score by Manager Type (Appointed v. Career)

Appointment Authority			
Appointee (0,1)	--	-5.43**	-4.56**
		(2.03)	(1.98)
Program Characteristics			
Block/Formula Grant (0,1)	-15.25**	-14.09**	-14.04**
	(2.68)	(3.46)	(3.43)
Capital Assets and Service Acquisition (0,1)	-8.73**	-10.11**	-10.32**
	(2.81)	(3.30)	(3.21)
Competitive Grant (0,1)	-16.72**	-15.95**	-15.55**
	(2.50)	(3.16)	(3.18)
Credit (0,1)	-7.20*	-6.49	-6.93
	(3.97)	(4.67)	(4.82)
Direct Federal (0,1)	-4.55**	-5.46*	-5.93*
	(2.26)	(3.08)	(3.04)
Mixed (0,1)	-12.50**	-11.05**	-12.15**
	(4.79)	(5.48)	(5.38)
Regulatory (0,1)	-0.81	-3.05*	-4.24*
	(3.17)	(3.66)	(3.66)
Bureau Characteristics			
Fixed Term (0,1)	--	12.24**	11.15**
		(3.58)	(3.60)
Commission (0,1)	--	2.12	0.98
		(4.29)	(4.32)
# Programs Evaluated	--	--	-0.58*
			(0.33)
Case missing in fully specified models (0,1)	2.98**	3.15*	2.18
	(1.47)	(1.75)	(1.75)
Constant	68.52**	72.43**	75.03**
	(2.04)	(3.11)	(3.27)
N	609	592	592
F (14, 209; 15, 209)	11.19**	6.76**	5.92**

Note: **significant at the p<0.05 level; *significant at the p<0.10 level in two-tailed test. Robust standard errors reported for Model 1. Robust standard errors adjusted for clustering on managers reported for Models 2 and 3.

Table A2. Federal Program PART Score by Manager Type (Appointed v. Career). Estimated Using Imputed Data for Missing Values. Compare to Table 2 in text.

Appointment Authority			
Appointee (0,1)	**-4.59** **(1.83)**	**-4.54** **(1.82)**	**--**
Senate confirmed appointee (PAS)	**--**	**--**	**-5.33** **(2.01)**
SES appointee (NA)	**--**	**--**	**-3.23** **(2.59)**
Program Characteristics			
Ln(Program Budget)	0.61 (0.43)	0.53 (0.43)	0.59 (0.44)
Block/Formula Grant (0,1)	-14.69** (2.52)	-14.74** (2.50)	-15.01** (2.50)
Capital Assets and Service Acquisition (0,1)	-11.09** (2.92)	-11.87** (2.93)	-12.15** (2.94)
Competitive Grant (0,1)	-15.54** (2.44)	-15.74** (2.44)	-16.39** (2.46)
Credit (0,1)	-6.86* (4.11)	-7.47* (4.11)	-8.11** (4.13)
Direct Federal (0,1)	-5.88** (2.20)	-6.35** (2.21)	-6.33** (2.20)
Mixed (0,1)	-12.77* (7.09)	-16.25** (7.25)	-16.82** (7.25)
Regulatory (0,1)	-4.34 (3.19)	-4.99* (3.21)	-5.31* (3.03)
Bureau Characteristics			
Fixed Term (0,1)	10.48** (3.05)	10.64** (3.03)	11.03** (3.03)
Commission (0,1)	1.85 (4.14)	1.59 (4.13)	2.30 (4.13)
# Programs Evaluated	-0.67** (0.21)	-0.63** (0.21)	-0.58** (0.22)
Political Characteristics			
Created Under Divided Government (0,1)	--	-4.45** (1.68)	-4.55** (1.70)
Created Under Democratic President (0,1)	--	-2.65 (1.77)	-2.73 (1.76)
Constant	73.43** (3.18)	77.85** (3.76)	78.06** (3.75)
N	609	609	609

Note: **significant at the p<0.05 level; *significant at the p<0.10 level in two-tailed test. Models estimated using imputed data for missing values.

Table A3. Federal Program PART Score by Background. Estimated Using Imputed Data for Missing Values. Compare to Table 3 in main text.

Bureau Chief Characteristics		
Bachelors (0,1)	5.67**	5.37**
	(2.10)	(2.08)
Masters (0,1)	3.44*	2.85
	(1.90)	(1.93)
PhD (0,1)	1.07	0.72
	(1.99)	(1.99)
Worked in Another Department (0,1)	2.19	2.32
	(1.60)	(1.60)
Private Management Experience (0,1)	0.17	0.32
	(1.49)	(1.48)
Worked in White House (0,1)	-2.48	-1.89
	(2.85)	(2.85)
Worked in Congress (0,1)	1.44	1.58
	(2.01)	(1.99)
Bureau Experience (0,1)	**3.78****	**4.12****
	(1.62)	**(1.62)**
Months Serving as Bureau Chief (0 to 182)	**0.18****	**0.18****
	(0.07)	**(0.07)**
Months Serving as Bureau Chief^2	-0.001	-0.001
	(0.001)	(0.001)
Previous Public Management Experience (0,1)	0.38	0.58
	(1.81)	(1.82)
Bureau Characteristics		
Fixed Term (0,1)	11.22**	11.42**
	(3.05)	(3.05)
Commission (0,1)	2.93	2.46
	(4.10)	(4.09)
# Programs Evaluated	-0.62**	-0.60**
	(0.22)	(0.22)
Political and Program Characteristics		
Created Under Divided Government (0,1)	--	-3.81**
		(1.77)
Created Under Democratic President (0,1)	--	-2.32
		(1.60)
Ln (Program Budget)	0.78*	0.69
	(0.43)	(0.43)
Constant	62.11**	66.40**
	(3.77)	(4.30)
N	609	609

Note: **significant at the 0.05 level, *significant at the 0.10 level in two tailed test. Program type indicator estimates omitted. Models estimated using imputed data for missing values.

Table A4. Model of PART Program Purpose and Design Score by Background. Estimated Using Imputed Data for Missing Values. Compare to Table 4 in text.

Bureau Chief Characteristics	
Bachelors (0,1)	1.66
	(2.28)
Masters (0,1)	7.04**
	(2.07)
PhD (0,1)	3.77*
	(2.18)
Worked in Another Department (0,1)	-0.61
	(1.73)
Private Management Experience (0,1)	-1.40
	(1.62)
Worked in White House (0,1)	**3.20**
	(3.02)
Worked in Congress (0,1)	**6.42****
	(2.13)
Bureau Experience (0,1)	1.03
	(1.77)
Months Serving as Bureau Chief (0 to 182)	0.03
	(0.08)
Months Serving as Bureau Chief^2	-0.000
	(0.001)
Previous Public Management Experience (0,1)	**4.27****
	(1.97)
Bureau Characteristics	
Fixed Term (0,1)	2.64
	(3.28)
Commission (0,1)	2.77
	(4.50)
# Programs Evaluated	-0.09
	(0.25)
Political and Program Characteristics	
Created Under Divided Government (0,1)	0.36
	(1.91)
Created Under Democratic President (0,1)	1.39
	(1.86)
Ln (Program Budget)	-0.16
	(0.45)
Constant	84.26**
	(4.53)
N	609

Note: **significant at the 0.05 level, *significant at the 0.10 level in two tailed test. Program type indicator estimates omitted. Models estimated using imputed data for missing values.

Table C.1 Federal Program PART Score by Manager Type—Split Sample Excluding Programs Created Under Unified Democratic Control

Appointment Authority	
Appointee (0,1)	-16.84**
	(4.27)
Program Characteristics	
Ln(Program Budget)	0.56
	(0.74)
Block/Formula Grant (0,1)	-24.94**
	(5.96)
Capital Assets and Service Acquisition (0,1)	-16.80**
	(6.79)
Competitive Grant (0,1)	-26.34**
	(7.95)
Credit (0,1)	-13.33**
	(4.56)
Direct Federal (0,1)	-20.69**
	(5.19)
Mixed (0,1)	-18.49**
	(7.01)
Regulatory (0,1)	-14.58**
	(6.67)
Bureau Characteristics	
Fixed Term (0,1)	20.76**
	(5.31)
Commission (0,1)	-7.54
	(6.46)
Insulation (0-4)	--
	(1.56)
Appointee*Insulation (0-4)	--
# Programs Evaluated	-0.53
	(0.43)
Political Characteristics and Constant	
Created Under Unified Democratic Control (0,1)	--
Constant	91.83**
	(6.96)
N (Observations, Managers)	98, 72

Note: **significant at the p<0.05 level; *significant at the p<0.10 level in two-tailed test. Robust standard errors adjusted for clustering on managers reported.