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Appendix C

Appendix to Chapter 5

The data used to estimate the earnings profile for federal workers were obtained from a random sample of individual General Schedule (GS) employees. The samples were taken from the Central Personnel Data File, March 1985. The number of observations is 16,616. The sample includes forty-eight federal agencies. For the larger agencies, a 1 percent random sample of full-time GS employees was obtained, whereas, for the smaller agencies, 10 percent samples were used, excluding those agencies with fewer than 200 employees. The agencies in the samples account for 98.5 percent of all GS employees. Table C.1 reports the OLS regression estimates. In addition to the estimated coefficients on the total experience and tenure variable, table C.1 contains the estimated effects on salary of minority status, veterans' preference, sex, handicap status, employment location, education, occupation, and agency variables. The variables are defined as follows (the definitions and codes used to generate the variables are from U.S. Office of Personnel Management [1985b]):

Minority status. The minority vector comprises three dummies representing basic racial and national origin and an excluded category (white, not of Hispanic origin):

MINORITY 1 = black, not of Hispanic origin;
MINORITY 2 = Hispanic;
MINORITY 3 = all other groups.

Veterans' preference categories. The veterans' preference vector is composed of two dummies plus an excluded category (no veterans' preference):

VET 5 = a veteran entitled to a five-point preference;
VET 10 = a veteran entitled to a ten-point preference.

Other socioeconomic variables.

FEMALE = one if female, zero otherwise;
HANDICAP = one if no reported history of physical or mental disabilities, zero otherwise.

Employment location. The regional variables are composed of six dummies plus an excluded category (the states of Virginia, West Virginia, Maryland, Pennsylvania, New Jersey, and Delaware excluding the Washington, D.C., SMSA):

PACIFIC = Washington, Oregon, and California;
MOUNTAIN = Montana, Idaho, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico;

**Table C.1 Earnings Regression for Individual Federal White-Collar Workers:
Dependent Variable = $\ln W_i$**

	Coefficient	<i>t</i> -statistic
Constant	10.109	282.78
Total experience:		
<i>E</i>	.008	11.14
<i>E</i> ²	-.0002	-10.89
Tenure:		
<i>T</i>	.03	42.82
<i>T</i> ²	-.0004	-16.37
Interaction:		
<i>ET</i>	-.00008	-2.27
Minority status:		
MINORITY 1	-.08	-20.99
MINORITY 2	-.03	-3.35
MINORITY 3	-.028	-3.83
Veterans' preference categories:		
VET 5	-.018	-4.43
VET 10	-.035	-4.93
Other socioeconomic variables:		
FEMALE	-.096	-24.14
HANDICAP	.032	5.58
Employment location:		
PACIFIC	-.003	-.55
MOUNTAIN	-.022	-3.26
NORTHCENT	.006	1.26
SOUTHERN	-.009	-1.85
NORTHEAST	-.003	-.43
DC	.11	21.08
Education variables:		
ED 1	.043	4.28
ED 2	.037	3.43
ED 3	.06	5.96
ED 4	.091	8.27
ED 5	.174	16.39
ED 6	.219	18.66
ED 7	.408	27.69
ED 8	.279	9.13
ED 9	.273	22.86
ED 10	.294	18.68
ED 11	.359	9.3
ED 12	.369	8.95
ED 13	.431	27.54
ED 14	.433	14.9
YHDO	-.004	-11.16
Occupational groups:		
Social science, psychology, and welfare	-.012	-1.38
Personnel management & industrial relations	.04	5.44
Biological sciences	-.124	-11.18
Accounting and budget	-.026	-4.56

(continued)

Table C.1 (continued)

	Coefficient	<i>t</i> -statistic
Medical, hospital, dental, and public health	-.077	-9.49
Veterinary medical science	-.113	-3.58
Engineering and architecture	.095	13.49
Legal and kindred	.002	.28
Information and arts	.013	1.14
Business and industry	.021	3.36
Copyright, patent, and trademark	-.002	-.54
Physical sciences	-.001	-.14
Library and archives	-.137	-7.09
Mathematics and statistics	-.002	-.15
Equipment, facilities, and service	.023	1.61
Education	-.058	-4.57
Investigation	.062	7.04
Quality assurance, inspection, and grading	-.014	-.98
Supply	-.036	-4.59
Transportation	.083	7.95
Miscellaneous	-.078	-6.27
PATCO classification:		
Professional	.09	15.48
Technical	-.257	-54.76
Clerical	-.419	-88.86
Other	-.373	-27.4
Supervisory position	.142	32.12
Managerial position	.287	29.62
Agency identifiers:		
Agriculture	-.046	-4.82
Commerce	.016	1.26
Defense	-.035	-5.26
Justice	.061	5.33
Labor	.071	4.77
Energy	.065	4.02
Education	.07	6.78
Equal Employment Opportunity Commission	.04	3.35
Federal Emergency Management	.05	3.55
Environmental Protection Agency	.081	3.96
Federal Communications Commission	.023	1.63
Federal Home Loan Bank	.048	2.85
Federal Trade Commission	.108	5.82
General Services Administration	-.024	-1.6
Housing and Urban Development	.049	2.69
Interior	-.031	-2.93
National Labor Relations Board	.087	6.84
National Aeronautics and Space Administration	.057	3.9
Office of Personnel Management	-.062	-6.13
Railroad Retirement Board	-.033	-1.9
Small Business Administration	.09	8.03

Table C.1 (continued)

	Coefficient	t-statistic
Securities and Exchange Commission	.075	5.18
Smithsonian Institution	-.034	-2.61
State	.009	.86
Transportation	.092	8.57
Treasury	.001	.07
Veterans Administration	-.056	-6.92
National Foundation on Arts and Humanities	-.027	-1.05
Federal Labor Relations Authority	.164	4.73
Merit Systems Protection Board	.109	3.8
Pension Benefit Guaranty Corporation	-.004	-.13
Office of Management and Budget	.228	8.14
Commission on Civil Rights	.074	1.48
Commodity Futures Trading Commission	.067	2.71
National Credit Union Administration	-.007	-.27
Export-Import Bank of the United States	.038	1.07
Farm Credit Administration	.149	4.81
Federal Mediation and Conciliation Service	.218	7.65
Interstate Commerce Commission	.026	1.23
ACTION	.101	3.4
Federal Maritime Commission	-.054	-1.37
National Science Foundation	.067	3.58
U.S. Soldiers' and Airmen's Home	-.207	-7.68
Consumer Product Safety Commission	.036	1.38
Selective Service System	.07	1.99
National Transportation Safety Board	.055	1.66
U.S. International Trade Commission	.025	.78

Note: The excluded agency is the Department of Health and Human Services.

NORTHCENT = North Dakota, South Dakota, Nebraska, Kansas, Montana, Iowa, Missouri, Wisconsin, Illinois, Indiana, Ohio, and Michigan;

SOUTHERN = Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Tennessee, Kentucky, Alabama, Florida, Georgia, South Carolina, and North Carolina;

NORTHEAST = New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine, and Vermont;

DC = Washington, D.C., SMSA.

Education. The vector of education variables is composed of fourteen dummies plus an excluded category (individuals without a high school diploma). The variables included are as follows:

- ED 1 = graduated from high school;
 ED 2 = attended an occupational training program;
 ED 3 = attended college but for less than eighty-nine semester hours;
 ED 4 = three to four years of college, but did not obtain a bachelor's degree;
 ED 5 = bachelor's degree;
 ED 6 = postbachelor's work but no additional higher degree;
 ED 7 = first professional degree (e.g., dentistry, law, medicine);
 ED 8 = post-first professional degree work but no additional degree;
 ED 9 = master's degree;
 ED 10 = postmaster's but no additional higher degree;
 ED 11 = sixth-year degree (e.g., advanced certificate in education or other areas);
 ED 12 = some work beyond a sixth-year degree but no additional degree;
 ED 13 = doctorate degree;
 ED 14 = postdoctorate;
 YHDO = calendar year in which highest degree was obtained; if no degree, for the 1985 data set YHDO was set equal to 1985 minus age plus six years of schooling.

Occupational variables. For a listing, see table C.1.

Agency variables. For a listing, see table C.1.

Appendix D

Appendix to Chapter 6

Tables D.1 and D.2 present the full set of variables and probit estimates used in obtaining the results reported in tables 6.1 and 6.2.

Table D.1 Variable Definitions

Variable	Description
1. Education 12	Equal to one if completed high school
2. Education 14	Equal to one if completed one or two years of college
3. Education 15	Equal to one if completed three years of college
4. Education 16	Equal to one if completed four years of college
5. Education 17	Equal to one if completed five or more years of college
6. Age	Individual's age in years
7. Age squared	Variable 6 squared
8. Male	Dummy variable equal to one if male
9. Marital status	Dummy variable equal to one if married
10. SMSA	Dummy variable equal to one if residence is in an SMSA
11. Union	Dummy variable equal to one if a member of a union