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Appendix C: Summary of Full Regression Equations of Log Earnings on Measured Ability and Background Variables

by John C. Hause

Regressions, for a single year, of the log of earnings on some ability measures and a more or less standard set of background variables are summarized in Table C-1 for the different samples and different schooling levels. The educational levels are not directly comparable for the different samples, and the coding should be checked in the main text. The scaling of the different ability tests makes direct comparison between samples meaningless, and the tests themselves would not be perfectly correlated. However, since earnings are expressed in logarithms, multiplying the ability coefficients by the standard deviation of the ability measure indicates the proportion (approximately) by which earnings are altered by this size of change in measured ability. This information is included in a number of tables in the main text.

The scaling and criteria used to produce dummy variables for high and low socioeconomic status differ greatly between samples and make comparison of coefficient magnitudes in the four samples meaningless.

Education level	Sample size N	Ability† test	LNWK (log of weeks worked)	SCH (social class high)
Rogers (dependent variable: log of 1960 earnings)				
E_1	60	.024 (.35)		−.262 (.278)
E_2	117	.70 (.32)		.050 (.210)
E_3	51	.36 (.78)		.062 (.262)
E_4	68	.92 (.63)		−.106 (.174)
E_5	47	1.32 (.90)		.180 (.221)
Project Talent (dependent variable: log of 1966 earnings)				
E'_1	183	.02 (.16)	.489 (2.36)	.038 (.49)
E'_2	3853	.06 (3.24)	.488 (9.51)	.067 (4.00)
E'_3	1914	.00 (.03)	.514 (9.25)	.059 (2.44)

SCL (social class low)	RC (religion Catholic)	RJ (religion Jewish)	NM (not married)	S (southern U.S.)	PHLTH (serious illness since mid-teens)	PS (private school)	R^2
−.351 (.202)	.202 (.099)		−.473 (.180)			−.057 (.298)	.240
−.233 (.107)	.067 (.081)	.679 (.275)	−.045 (.132)			.072 (.134)	.165
.144 (.174)	.040 (.153)	.696 (.376)	−.744 (.390)			.556 (.238)	.296
−.119 (.182)	.114 (.139)	.170 (.270)	−.843 (.251)			.338 (.162)	.212
.020 (.222)	.566 (.210)	.636 (.245)	−.695 (.386)			.063 (.245)	.319
					PARS	*PRVS*	
−.083 (1.20)	.042 (.67)	.203 (.88)	−.166 (2.53)	−.236 (2.74)	.023 (.11)	.026 (.09)	.136
−.046 (2.84)	.041 (2.57)	.050 (.91)	−.298 (21.3)	−.068 (3.57)	−.030 (.99)	.224 (3.59)	.149
.012 (.38)	.068 (2.45)	.093 (1.66)	−.320 (14.5)	−.095 (3.11)	−.017 (.42)	.001 (.02)	.156

TABLE C-1
(continued)

Education level	Sample size N	Ability† test	LNWK (log of weeks worked)	SCH (social class high)
Project Talent: (dependent variable: log of 1966 earnings) (continued)				
E'_4	793	—.03 (.56)	.702 (12.0)	.062 (1.49)
E'_5	2534	.06 (2.24)	.719 (34.3)	.038 (1.57)
NBER-Thorndike (dependent variable: log of 1969 earnings)				
E^+_1	489	.0267 (.0102)		—.059 (.092)
E^+_2	535	.021 (.011)		—.039 (.069)
E^+_3	900	.026 (.007)		.003 (.039)
E^+_4	211	.072 (.014)		—.011 (.086)
E^+_5	128	.044 (.024)		—.237 (.126)
E^+_6	53	.030 (.034)		—.356 (.148)

SCL (social class low)	RC (religion Catholic)	RJ (religion Jewish)	NM (not married	S (southern U.S.)	PHLTH (serious illness since mid-teens)	PS (private school)		R^2
						PARS	PRVS	
.010 (.15)	.066 (1.38)	.132 (1.64)	−.330 (8.06)	−.082 (1.58)		−.052 (.76)	.165 (1.73)	.263
−.006 (.172)	.055 (1.92)	.027 (.67)	−.105 (4.98)	.038 (1.28)		−.069 (1.71)	−.031 (.62)	.376
−.034 (.040)	−.039 (.035)	.564 (.101)	−.180 (.077)	−.024 (.049)				.077
−.118 (.038)	.003 (.042)	.291 (.096)	−.058 (.081)	−.022 (.048)				.050
−.082 (.027)	.002 (.029)	.372 (.062)	−.167 (.059)	−.084 (.032)				.086
−.217 (.060)	.182 (.073)	.274 (.102)	−.176 (.128)	−.060 (.086)				.233
−.233 (.112)	.037 (.112)	.122 (.1578)	.118 (.208)	−.065 (.106)				.084
−.207 (.123)	.122 (.126)	.040 (.225)	−.420 (.230)	.129 (.159)				.216

TABLE C-1
(concluded)

Education level	Sample size N	Ability† test	LNWK (log of weeks worked)	SCH (social class high)
Husèn Swedish sample (dependent variable: log of 1968 earnings)				
E_1^r	18	.392 (.607)		
E_2^r	235	.050 (.800)		—.138 (.161)
E_3^r	59	.219 (.379)		—.291 (.208)
E_4^r	66	.427 (.386)		.049 (.136)
E_5^r	51	.586 (.409)		.255 (.106)
E_6^r	21	.393 (.457)		—.018 (.157)

*Standard errors are in parentheses except for Project Talent, where the regression program gives t-values.

† Different ability tests are used for each major sample cohort. These are Rogers, IQ test scores; Project Talent, C004 (quantitative composite); NBER-Thorndike (a general-ability factor from Air Force test battery); and Husén, TST38 (total test score, 1938).

SOURCE: Author's computations are from data in the indicated samples.

SCL (social class low)	RC (religion Catholic)	RJ (religion Jewish)	NM (not married	S (southern U.S.)	PHLTH (serious illness since mid-teens)	PS (private school)	R^2
—.105 (.195)			—.112 (.241)		—.061 (.349)		.098
—.049 (.042)			—.163 (.072)		—.025 (.062)		.030
—.072 (.129)			—.121 (.394)		—.116 (.237)		.042
—.111 (.141)			—.277 (.157)		—.238 (.166)		.117
—.086 (.137)			—.071 (.161)		—.098 (.176)		.199
—.066 (.328)					—.049 (.239)		.056