. reg lwage educ exper female nonwhite;

Hypothesis testing about a parameter of the population regression

1. Wage equation

Data source: Current Population Survey 2006. wage is average hourly earnings (in \$)

_	Source	SS	df		MS		Number of obs $F(4)$ 1995)		= 2000 = 186 03
_	Model Residual	182.711923 489.864945	4 1995	45.6779807 .245546338			Prob > F R-squared		0.0000
_	Total	672.576867	1999	.336	456662		Root MSE		.49553
	lwage	Coef.	Std.	Err.	t	P> t	[95% Conf.	In	terval]
	educ exper female nonwhite _cons	.1166997 .0108872 2533177 0374311 1.061903	.0053 .0008 .0222 .0311 .0759	153 691 198 452 003	21.96 12.53 -11.40 -1.20 13.99	0.000 0.000 0.230 0.000	.1062756 .0091827 2968942 0985117 .9130514	 1	1271237 0125917 2097412 0236495 .210756

log(wage) =	1.06	+ .117 educ	+ .011 exp	25 female037 nonwhite		$R^2 = .27$	
	(.08)	(.005)	(.0009)	(.02)	(.031)	n = 2000	

2. Influence of school size on test score

Data source: MEAP93.RAW in Wooldridge – 408 high schools in Michigan in 1993 Enroll: student enrollment in school Totcomp: average annual teacher compensation (teacher quality) Staff: number of staff per 1000 students (attention to students) Math10: Percentage of students that received a passing score on standardized 10th grade test

math10 = 2.274 + .00	046 totcomp + .048 staff	00020 enroll	$R^2 = .0541$
(6.113) (.00	010) (.040)	(.00022)	n=408
$\widehat{math10} = -207.7 + 21.$ (48.7) (4.0	16 ln(totcomp) + 3.98 ln(s+ 6) (4.19)	taff) - 1.29 ln(enroll) (.69)	$R^2 = .0654$ n=408

3. Pollution by paper mills: Are larger and smaller paper mills differentially dirty?

Data source: PaperInd.xls collected by Jay Shimshack, professor at Tuft University Discharge of suspended solids in waterways by the 160 major pulp and paper plants located throughout the United States (in 23 states) in the month of January 1990

Emission: total suspended solids discharged, in pounds.

Permit: maximum allowance of suspended solids discharge under the law

Size: firm size - production capacity in kilotons/day

Pulp: a dummy variable equal to 1 for pulp manufacturer and 0 for paper manufacturer

$\widehat{emission} = 923$ (102)	3 + 4.1 0) (.81	74 size + 3864 pu 1) (1347)	ılp	$R^2 = .25$ n = 160
ln(emission) =	1.51	+ .907 ln(size)	+ .70 pulp	$R^2 = .37$
	(.68)	(.110)	(.29)	n = 160