Assignment3

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Regression analysis

Table 1: Regression analysis regarding (non-) violent and total crimes and independent variable marriage

	Dependent variable:		
	CrimeViolentSum (1)	CrimeNonViolentSum (2)	CrimeTotalSum
			(3)
marriageRel	19.10	-384.95	-365.85
	(706.13)	(2,739.59)	(3,399.17)
DensityPerSQRTkm100	194.76***	573.28***	768.04***
	(14.89)	(57.77)	(71.68)
PopulationYoung	4.59	149.86	154.45
	(40.11)	(155.61)	(193.08)
MalePopulationRel	251.71*	474.96	726.67
	(130.91)	(507.90)	(630.18)
${\bf Unemployed Percentage}$	45.89	405.10***	451.00***
	(32.30)	(125.30)	(155.47)
Constant	$-12,\!157.73^*$	-26,817.01	-38,974.73
	(6,530.90)	(25,338.28)	(31,438.68)
Observations	408	408	408
\mathbb{R}^2	0.42	0.35	0.37
Adjusted R ²	0.41	0.34	0.36

Note:

*p<0.1; **p<0.05; ***p<0.01

This regression output shows the results using 3 different dependent variables

Table 2: Regression analysis regarding (non-) violent and total crimes and independent variable religion

	$Dependent\ variable:$		
	CrimeViolentSum (1)	CrimeNonViolentSum (2)	CrimeTotalSum (3)
BelieversPercent	-4.94	-37.68*	-42.62
	(5.85)	(22.66)	(28.13)
DensityPerSQRTkm100	194.83***	567.19***	762.02***
	(14.82)	(57.38)	(71.23)
PopulationYoung	26.53	316.11*	342.64
	(47.91)	(185.54)	(230.31)
${\it Male Population Rel}$	229.49*	367.64	597.13
	(129.30)	(500.73)	(621.56)
${\bf Unemployed Percentage}$	26.87	297.09**	323.97*
	(36.07)	(139.69)	(173.39)
Constant	$-11,\!142.60^*$	-22,543.68	-33,686.28
	(6,337.41)	(24,541.69)	(30,464.01)
Observations	402	402	402
R^2	0.42	0.35	0.37
Adjusted \mathbb{R}^2	0.41	0.35	0.37

*p<0.1; **p<0.05; ***p<0.01 This regression output shows the results using 3 different dependent variables

 $\begin{tabular}{ll} Table 3: Regression analysis regarding (non-) violent and total crimes and independent variable in- and outflow \\ \end{tabular}$

	Dependent variable:		
	CrimeViolentSum	CrimeNonViolentSum	CrimeTotalSum
	(1)	(2)	(3)
FlowPercent	-23.12	-204.42^*	-227.53
	(30.35)	(117.38)	(145.75)
DensityPerSQRTkm100	195.71***	584.37***	780.08***
	(14.55)	(56.29)	(69.89)
PopulationYoung	15.89	249.02	264.91
T a m C	(42.71)	(165.22)	(205.14)
${\it Male Population Rel}$	240.65*	402.64	643.29
	(127.41)	(492.82)	(611.91)
UnemployedPercentage	42.31	374.52***	416.84***
r	(32.58)	(126.01)	(156.46)
Constant	$-11,\!570.93^*$	$-23{,}152.14$	-34,723.07
	(6,269.89)	(24,252.45)	(30,113.28)
Observations	408	408	408
\mathbb{R}^2	0.42	0.35	0.37
Adjusted R ²	0.41	0.35	0.37

*p<0.1; **p<0.05; ***p<0.01

This regression output shows the results using 3 different dependent variables

Table 4: Regression analysis regarding (non-) violent and total crimes and independent variable voter turnout

	Dependent variable:		
	CrimeViolentSum (1)	CrimeNonViolentSum (2)	CrimeTotalSum (3)
TurnoutPercentage	104.86***	522.73***	627.59***
	(20.07)	(76.11)	(94.79)
DensityPerSQRTkm100	198.41***	593.79***	792.20***
	(14.05)	(53.28)	(66.36)
PopulationYoung	-41.84	-82.21	-124.05
	(39.81)	(150.99)	(188.04)
${\it Male Population Rel}$	354.10***	1,007.55**	1,361.65**
	(124.28)	(471.39)	(587.06)
UnemployedPercentage	94.73***	649.49***	744.22***
	(32.59)	(123.63)	(153.96)
Constant	-23,852.99***	-86,440.42***	-110,293.40***
	(6,438.67)	(24,422.52)	(30,415.12)
Observations	408	408	408
\mathbb{R}^2	0.45	0.42	0.43
Adjusted \mathbb{R}^2	0.45	0.41	0.42

*p<0.1; **p<0.05; ***p<0.01

This regression output shows the results using 3 different dependent variables

Table 5: Regression analysis regarding (non-) violent and total crimes and all independent variables at the same time $\,$

	Dependent variable:		
	CrimeViolentSum (1)	CrimeNonViolentSum (2)	CrimeTotalSum (3)
${\rm marriageRel}$	$261.55 \\ (758.70)$	$1,923.16 \\ (2,857.51)$	$2,184.70 \\ (3,564.77)$
${\bf Turnout Percentage}$	106.09*** (20.43)	522.20*** (76.95)	628.29*** (96.00)
BelieversPercent	-3.34 (5.93)	-35.59 (22.34)	-38.93 (27.86)
FlowPercent	-41.72 (32.02)	-321.18^{***} (120.60)	-362.90^{**} (150.45)
DensityPerSQRTkm100	202.79*** (14.87)	613.15*** (56.00)	815.94*** (69.85)
PopulationYoung	-6.91 (53.02)	233.63 (199.70)	226.72 (249.13)
MalePopulationRel	326.49** (133.24)	801.49 (501.83)	1,127.98* (626.04)
${\bf Unemployed Percentage}$	72.03* (37.82)	487.20*** (142.45)	559.23*** (177.71)
Constant	$-22,694.38^{***} \\ (6,980.35)$	$-77,553.84^{***}$ (26,290.20)	$-100,248.20^{***} \\ (32,797.21)$
Observations R^2 Adjusted R^2	402 0.46 0.45	402 0.43 0.42	402 0.44 0.43

*p<0.1; **p<0.05; ***p<0.01 This regression output shows the results using 3 different dependent variables