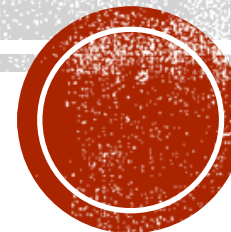




# ECONOMETRIA I

Curso de Ciências Econômicas

Prof. Lindomar Pegorini Daniel

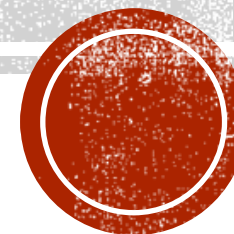


# UNIDADE 1: INTRODUÇÃO AO MODELO DE REGRESSÃO LINEAR

Tópico 1.2 – Introdução à econometria

Aula 7 – Estrutura dos dados

Prof. Lindomar Pegorini Daniel



# ESTRUTURA DOS DADOS



- Estruturas principais:
  - Dados de séries temporais;
  - Dados de corte transversal;
  - Dados em painel;
  - Dados espaciais ou georreferenciados.
- BigData



# DADOS DE SÉRIES TEMPORAIS

As observações  
variam conforme  
o tempo

Data	Dia	Temperatura	Chuva	Panfletos	Preço	Vendas
01/01/2017	Domingo	-2,78	20,0	15	1,20	10
02/01/2017	Segunda	-1,72	13,3	15	1,20	13
03/01/2017	Terça	1,39	13,3	27	1,20	15
04/01/2017	Quarta	6,72	10,5	28	1,20	17
05/01/2017	Quinta	5,78	10,0	33	1,20	18
06/01/2017	Sexta	-3,72	15,4	23	1,20	11
07/01/2017	Sábado	0,50	15,4	19	1,20	13
08/01/2017	Domingo	3,06	11,8	28	1,20	15
09/01/2017	Segunda	3,39	11,8	20	1,20	17
10/01/2017	Terça	6,33	10,5	33	1,20	18
11/01/2017	Quarta	0,33	15,4	23	1,20	12
12/01/2017	Quinta	3,44	13,3	16	1,20	14
13/01/2017	Sexta	3,06	13,3	19	1,20	15
14/01/2017	Sábado	6,72	10,5	23	1,20	17
15/01/2017	Domingo	6,33	11,1	33	1,20	18
16/01/2017	Segunda	-0,78	16,7	24	1,20	12
17/01/2017	Terça	0,11	14,3	26	1,20	14
18/01/2017	Quarta	6,00	11,8	33	1,20	16
19/01/2017	Quinta	6,17	11,8	30	1,20	17
20/01/2017	Sexta	-0,22	14,3	20	1,20	12
21/01/2017	Sábado	2,33	12,5	16	1,20	14



# DADOS DE CORTE TRANSVERSAL

As observações  
variam conforme  
o indivíduo

obs	Salário	Feminino	Não branco	Sindicato	Escolaridade	Experiência
1	11,55	1	0	0	12	20
2	5,00	0	0	0	9	9
3	12,00	0	0	0	16	15
4	7,00	0	1	1	14	38
5	21,15	1	1	0	16	19
6	6,92	1	0	0	12	4
7	10,00	1	0	0	12	14
8	8,00	1	1	0	12	32
9	15,63	0	0	0	18	7
10	18,22	1	0	0	18	5
11	20,00	0	0	0	20	31
12	4,35	1	0	0	12	7
13	5,00	0	0	0	5	31
14	8,25	0	1	0	12	14
15	15,00	0	0	1	12	15
16	19,00	1	1	1	14	26
17	18,00	0	1	1	14	23
18	7,07	0	0	1	16	4
19	8,00	0	0	0	14	16
20	25,00	0	0	0	14	27
21	17,30	1	0	0	12	44



# DADOS EM PAINEL

	ano	renda	imposto	vendas	estado	
As observações variam conforme o tempo	1985	10749,07	13,29	1,06	1	As observações variam conforme o indivíduo
	1986	11098,54	13,05	1,09	1	
	1987	11290,49	12,59	1,1	1	
	1988	11579,04	12,09	1,1	1	
	1989	11987,9	11,53	1,1	1	
	1990	12029,84	10,94	1,12	1	
	1991	12045,52	14,2	1	1	
	1992	12349,96	13,78	1,02	1	
	1993	12293,43	13,38	1,14	1	
	1994	12554,66	13,05	1,16	1	
	1995	12756,56	12,69	1,14	1	
	1996	12798,6	12,33	1,17	1	
	1997	13040,5	12,05	1,14	1	
	1998	13512,27	11,86	1,16	1	
	1999	13638,66	11,61	1,18	1	
	2000	13802,55	11,23	1,19	1	
	1985	18885,69	10,33	1,68	2	
	1986	18072,08	10,14	1,68	2	
	1987	17039,61	9,79	1,64	2	
	1988	16827,56	9,4	1,6	2	
	1989	17441,94	8,97	1,57	2	



# DADOS ESPACIAIS

município	ano	pib_pc	população	pessoal	operacional	despesa total	coord_X	coord_Y
Alta Floresta	2017	31,95	50189	478,35	152,84	597,70	-56202701	-14990695
Barra do Bugres	2017	41,83	33644	354,25	241,51	570,96	-56201585	-14994483
Cáceres	2017	21,39	91271	320,53	207,60	505,69	-56200704	-14996458
Campo Novo do Parecis	2017	94,02	33551	533,06	601,12	1096,86	-56200563	-14997997
Chapada dos Guimarães	2017	39,15	19049	579,75	232,61	771,78	-56201451	-14999376
Colíder	2017	28,30	32298	287,85	364,85	632,56	-56195447	-15004197
Cuiabá	2017	42,46	590118	595,18	762,56	1316,08	-56194308	-15005715
Diamantino	2017	98,82	21294	722,16	953,08	1624,69	-5619262	-15012307
Feliz Natal	2017	31,48	13451	334,61	263,52	574,71	-56191726	-15014287
Guarantã do Norte	2017	23,08	34500	408,46	377,01	756,88	-56190811	-15019354
Juara	2017	25,00	33851	483,93	549,47	999,53	-56188141	-15021754
Lucas do Rio Verde	2017	65,03	61515	386,86	673,35	1033,12	-56188199	-15024923
Matupá	2017	41,29	15870	424,41	565,28	959,98	-56189005	-15026388
Nobres	2017	37,96	14917	311,80	530,14	820,11	-56188983	-15028473
Nova Mutum	2017	70,26	42607	517,78	585,00	1066,53	-56189672	-15030484
Rondonópolis	2017	46,42	222316	506,93	612,74	1084,18	-56188919	-15036088
Santa Carmem	2017	76,59	4360	653,46	600,08	1207,80	-56189449	-1503882
Sapezal	2017	111,35	24305	464,77	623,69	1055,93	-56189977	-15040458
Sinop	2017	44,52	135874	423,63	409,24	803,22	-56191562	-15040759
Sorriso	2017	72,31	85223	496,21	428,74	890,22	-5619292	-15041967
Tangará da Serra	2017	32,80	98828	464,19	237,90	669,60	-5619517	-15041638

Conhecemos a  
localização  
geográfica das  
observações



# BIGDATA



ProductID	ReviewerName	Email	Rating	Comments
709	John Smith	john@fourthcoffee.com	5	I can't believe I'm singing the praises of a pair of socks, but I just came back from a grueling 3-day ride and these socks really helped make the trip a blast. They're lightweight yet really cushioned my feet all day. The reinforced toe is nearly bullet-proof and I didn't experience any problems with rubbing or blisters like I have with other brands. I know it sounds silly, but it's always the little stuff (like comfortable feet) that makes or breaks a long trip. I won't go on another trip without them!
937	David	david@graphicdesigninstitute.com	4	A little on the heavy side, but overall the entry/exit is easy in all conditions. I've used these pedals for more than 3 years and I've never had a problem. Cleanup is easy. Mud and sand don't get trapped. I would like them even better if there was a weight reduction. Maybe in the next design. Still, I would recommend them to a friend.
937	Jill	jill@margiestravel.com	2	Maybe it's just because I'm new to mountain biking, but I had a terrible time getting use to these pedals. In my first outing, I wiped out trying to release my foot. Any suggestions on ways I can adjust the pedals, or is it just a learning curve thing?
798	Laura Norman	laura@treyresearch.net	5	The Road-550-W from Adventure Works Cycles is everything it's advertised to be. Finally, a quality bike that is actually built for a woman and provides control and comfort in one neat package. The top tube is shorter, the suspension is weight-tuned and there's a much shorter reach to the brake levers. All this adds up to a great mountain bike that is sure to accommodate any woman's anatomy. In addition to getting the size right, the saddle is incredibly comfortable. Attention to detail is apparent in every aspect from the frame finish to the careful design of each component. Each component is a solid performer without any fluff. The designers clearly did their homework and thought about size, weight, and functionality throughout. And at less than 19 pounds, the bike is manageable for even the most petite cyclist.





# BIGDATA



ProductID	Name	ProductNumber	Color	StandardCost	ListPrice	Size	Weight
680	HL Road Frame - Black, 58	FR-R92B-58	Black	1059.31	1431.50	58	1016.04
706	HL Road Frame - Red, 58	FR-R92R-58	Red	1059.31	1431.50	58	1016.04
707	Sport-100 Helmet, Red	HL-U509-R	Red	13.0863	34.99	NULL	NULL
708	Sport-100 Helmet, Black	HL-U509	Black	13.0863	34.99	NULL	NULL
709	Mountain Bike Socks, M	SO-B909-M	White	3.3963	9.50	M	NULL
710	Mountain Bike Socks, L	SO-B909-L	White	3.3963	9.50	L	NULL
711	Sport-100 Helmet, Blue	HL-U509-B	Blue	13.0863	34.99	NULL	NULL
712	AWC Logo Cap	CA-1098	Multi	6.9223	8.99	NULL	NULL
713	Long-Sleeve Logo Jersey, S	LJ-0192-S	Multi	384.923	49.99	S	NULL
714	Long-Sleeve Logo Jersey, M	LJ-0192-M	Multi	384.923	49.99	M	NULL
715	Long-Sleeve Logo Jersey, L	LJ-0192-L	Multi	384.923	49.99	L	NULL
716	Long-Sleeve Logo Jersey, XL	LJ-0192-X	Multi	384.923	49.99	XL	NULL
717	HL Road Frame - Red, 62	FR-R92R-62	Red	868.6342	1431.50	62	1043.26
718	HL Road Frame - Red, 44	FR-R92R-44	Red	868.6342	1431.50	44	961.61
719	HL Road Frame - Red, 48	FR-R92R-48	Red	868.6342	1431.50	48	979.75
720	HL Road Frame - Red, 52	FR-R92R-52	Red	868.6342	1431.50	52	997.90
721	HL Road Frame - Red, 56	FR-R92R-56	Red	868.6342	1431.50	56	1016.04
722	LL Road Frame - Black, 58	FR-R38B-58	Black	204.6251	337.22	58	1115.83
723	LL Road Frame - Black, 60	FR-R38B-60	Black	204.6251	337.22	60	1124.90
724	LL Road Frame - Black, 62	FR-R38B-62	Black	204.6251	337.22	62	1133.98
725	LL Road Frame - Red, 44	FR-R38R-44	Red	187.571	337.22	44	1052.33
726	LL Road Frame - Red, 48	FR-R38R-48	Red	187.571	337.22	48	1070.47
727	LL Road Frame - Red, 52	FR-R38R-52	Red	187.571	337.22	52	1088.62
728	LL Road Frame - Red, 58	FR-R38R-58	Red	187.571	337.22	58	1115.83
729	LL Road Frame - Red, 60	FR-R38R-60	Red	187.571	337.22	60	1124.90
730	LL Road Frame - Red, 62	FR-R38R-62	Red	187.571	337.22	62	1133.98



# BIGDATA



CustomerID	Title	FirstName	MiddleName	LastName	EmailAddress	Phone
1	Mr.	Orlando	N.	Gee	orlando0@adventure-works.com	245-555-0173
2	Mr.	Keith	NULL	Harris	keith0@adventure-works.com	170-555-0127
3	Ms.	Donna	F.	Carreras	donna0@adventure-works.com	279-555-0130
4	Ms.	Janet	M.	Gates	janet1@adventure-works.com	710-555-0173
5	Mr.	Lucy	NULL	Harrington	lucy0@adventure-works.com	828-555-0186
6	Ms.	Rosmarie	J.	Carroll	rosmarie0@adventure-works.com	244-555-0112
7	Mr.	Dominic	P.	Gash	dominic0@adventure-works.com	192-555-0173
10	Ms.	Kathleen	M.	Garza	kathleen0@adventure-works.com	150-555-0127
11	Ms.	Katherine	NULL	Harding	katherine0@adventure-works.com	926-555-0159
12	Mr.	Johnny	A.	Caprio	johnny0@adventure-works.com	112-555-0191
16	Mr.	Christopher	R.	Beck	christopher1@adventure-works.com	1 (11) 500 555-0132
18	Mr.	David	J.	Liu	david20@adventure-works.com	440-555-0132
19	Mr.	John	A.	Beaver	john8@adventure-works.com	521-555-0195
20	Ms.	Jean	P.	Handley	jean1@adventure-works.com	582-555-0113
21	NULL	Jinghao	NULL	Liu	jinghao1@adventure-works.com	928-555-0116
22	Ms.	Linda	E.	Burnett	linda4@adventure-works.com	121-555-0121
23	Mr.	Kerim	NULL	Hanif	kerim0@adventure-works.com	216-555-0122
24	Mr.	Kevin	NULL	Liu	kevin5@adventure-works.com	926-555-0164
25	Mr.	Donald	L.	Blanton	donald0@adventure-works.com	357-555-0161



# ESTRUTURA DOS DADOS



- Próxima atividade:
  - Atividade prática: Laboratório 4
  
- E-mail:
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