

**Online Appendix**

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**“Subnationalism and Social Development: A Comparative  
Analysis of Indian States”**

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Online appendix table 1.1: Alternative estimate: Time-series Cross-sectional OLS Estimates of Determinants of Social Development and Expenditures across Indian States (1971-2001)

	1.1 Lit	1.2 IMR	2.1 Edu exp	2.2 Med exp	2.3 Non-dev exp	3.1 Lit	3.2 IMR
Subnationalism	0.716*** (0.139)	-2.348*** (0.703)	0.014*** (0.007)	0.028*** (0.006)	-0.526*** (0.153)		
Economic development	-0.000 (0.000)	-0.002 (0.002)	0.000*** (0.000)	0.000*** (0.000)	0.001# (0.001)	-0.000 (0.000)	-0.001 (0.002)
Left party rule	0.013 (0.505)	-0.304 (1.300)	-0.018 (0.020)	-0.011 (0.023)	0.390 (0.630)	0.325 (0.503)	-1.256 (1.287)
Two party competition	-0.090 (0.277)	0.227 (1,184)	0.026* (0.013)	0.015 (0.014)	-0.471 (0.338)	-0.116 (0.286)	0.316 (1.197)
Closeness of political competition	0.001 (0.006)	0.009 (0.029)	-0.000 (0.000)	-0.000 (0.000)	-0.001 (0.008)	0.001 (0.007)	0.013 (0.029)
Ethnic diversity	5.174*** (1.472)	-28.127*** (5.733)	0.026 (0.053)	-0.099* (0.058)	2.980** (1.424)	3.846*** (1.463)	-30.030*** (5.980)
Inequality	-0.095 (0.738)	-1.489 (3.245)	0.004 (0.046)	0.066 (0.051)	-1.535* (0.915)	0.003 (0.753)	-1.547 (3.233)
Poverty	0.043*** (0.014)	-0.167*** (0.054)	0.002*** (0.001)	0.001* (0.001)	0.004 (0.015)	0.026* (0.014)	-0.134*** (0.051)
Literacy rate	0.889*** (0.018)					0.920*** (0.018)	
Edu exp			0.905*** (0.032)			1.056* (0.618)	
Med exp				0.834*** (0.030)			-7.907*** (2.957)
Non-dev exp					0.748*** (0.31)		
IMR		0.777*** (0.035)					0.800*** (0.072)
decade70s	0.892** (0.361)	0.000 (0.0)	-0.020 (0.021)	0.075*** (0.022)	-2.513*** (0.474)	0.458** (0.443)	0.000 (0.0)
decade80s	2.858*** (0.464)	-8.440*** (1.902)	0.076** (0.031)	0.177*** (0.035)	-2.422*** (0.628)	1.342** (0.590)	-2.876# (1.822)
decade90s	4.715*** (0.630)	-13.572*** (2.859)	0.066# (0.042)	0.186*** (0.042)	-1.259* (0.690)	2.276*** (0.744)	-5.611** (2.217)
decade00s	16.455*** (1.097)	-14.550*** (5.337)	0.000 (0.0)	0.000 (0.0)	1.226 (1.339)	13.242*** (1.222)	-4.278 (4.498)
Constant	-1.626 (2.677)	54.080*** (12.319)	0.147 (0.169)	-0.024 (0.173)	14.659*** (3.599)	-3.090 (3.089)	61.842*** (14.836)
N	490	357	482	482	496	490	357
R2	0.973	0.913	0.950	0.945	0.793	0.972	0.912

# p<0.15, \* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Figures in cells are Prais-Winsten regression coefficients.

Figures in parentheses are panel corrected standard errors with with lagged dependent variables and standard errors corrected for panel heteroskedasticity.

Time dummies included.

Online appendix table 1.2: Alternative estimate: Time-series Cross-sectional OLS Estimates of Determinants of Social Development and Expenditures across Indian States (1971-2001)

	1.1 Lit	1.2 IMR	2.1 Edu exp	2.2 Med exp	2.3 Non-dev exp	3.1 Lit	3.2 IMR
Subnationalism	0.716*** (0.166)	-2.348*** (0.736)	0.014*** (0.005)	0.028*** (0.006)	-0.526*** (0.150)		
Economic development	-0.000 (0.000)	-0.002 (0.002)	0.000*** (0.000)	0.000*** (0.000)	0.001# (0.000)	-0.000 (0.000)	-0.001 (0.002)
Left party rule	0.013 (0.333)	-0.304 (1.544)	-0.018** (0.008)	-0.011* (0.006)	0.390# (0.256)	0.325 (0.336)	-1.256 (1.473)
Two party competition	-0.090 (0.308)	0.227 (0.788)	0.026*** (0.009)	0.015 (0.013)	-0.471# (0.319)	-0.116 (0.352)	0.316 (0.897)
Closeness of political competition	0.001 (0.009)	0.009 (0.025)	-0.000 (0.000)	-0.000 (0.000)	-0.001 (0.007)	0.001 (0.008)	0.013 (0.027)
Ethnic diversity	5.174*** (2.001)	-28.127*** (10.159)	0.026 (0.027)	-0.099** (0.044)	2.980* (1.701)	3.846* (2.095)	-30.030*** (9.574)
Inequality	-0.095 (1.013)	-1.489 (2.695)	0.004 (0.037)	0.066# (0.044)	-1.535 (1.068)	0.003 (1.022)	1.547 (2.725)
Poverty	0.043** (0.017)	-0.167** (0.067)	0.002*** (0.001)	0.001** (0.001)	0.004 (0.013)	0.026# (0.016)	-0.134** (0.061)
Literacy rate	0.889*** (0.019)					0.920*** (0.019)	
Edu exp			0.905*** (0.025)			1.056** (0.433)	
Med exp				0.834*** (0.025)			-7.907** (3.705)
Non-dev exp					0.748*** (0.039)		
IMR		0.777*** (0.071)					0.800*** (0.072)
decade70s	0.892*** (0.320)	14.550*** (3.411)	-0.020 (0.017)	0.075*** (0.019)	-2.513*** (0.520)	0.458** (0.215)	4.278 (3.994)
decade80s	2.858*** (0.688)	6.110*** (2.290)	0.076*** (0.026)	0.177*** (0.027)	-2.422*** (0.617)	1.342*** (0.502)	1.401 (2.2664)
decade90s	4.715*** (1.199)	0.978 (1.267)	0.066** (0.026)	0.186*** (0.031)	-1.259** (0.557)	2.276*** (0.842)	-1.333 (1.921)
decade00s	16.455*** (1.293)	0.000	0.000	0.000	1.226 (0.991)	13.242*** (1.614)	0.000
Constant	-1.626 (3.054)	39.530** (15.888)	0.147 (0.139)	-0.024 (0.152)	14.659*** (4.782)	-3.090 (3.993)	57.564*** (20.972)
N	490	357	482	482	496	490	357
R2							

# p<0.15, \* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Figures in cells are random effects generalized least squares regression coefficients with lagged dependent variables and robust standard errors clustered by state name. Time dummies included in all models.

Online appendix table 1.3: Time-series Cross-sectional OLS Estimates of Determinants of Social Development and Expenditures across Indian States with alternative measures of social expenditures (1971-2001)

	Edu exp	Health exp	Soc exp	Soc exp (per capita)	Dev exp (per capita)
Subnationalism	0.502** (0.203)	0.413*** (0.099)	1.009*** (0.307)	0.073*** (0.018)	0.105*** (0.015)
Economic development	-0.002*** (0.001)	-0.001*** (0.000)	-0.003*** (0.001)	0.000*** (0.000)	0.000*** (0.000)
Left party rule	0.326 (0.643)	0.159 (0.300)	3.033*** (0.915)	0.164*** (0.053)	-0.003 (0.047)
Two party competition	0.429 (0.328)	0.029 (0.174)	0.213 (0.536)	0.036 (0.031)	0.033 (0.026)
Closeness of political competition	-0.015** (0.007)	0.005 (0.004)	-0.000 (0.012)	-0.001 (0.001)	-0.001 (0.001)
Ethnic diversity	16.439*** (1.914)	0.984 (0.882)	2.338 (3.315)	-0.261# (0.165)	-0.543*** (0.134)
Inequality	0.041 (0.784)	0.542 (0.457)	1.291 (1.465)	0.444*** (0.130)	0.286*** (0.070)
Poverty	0.084*** (0.016)	0.023*** (0.008)	0.063** (0.027)	-0.003* (0.002)	-0.002* (0.001)
decade70s	-0.517 (0.482)	0.621** (0.248)	0.000 (0.000)	0.000 (0.000)	0.274*** (0.037)
decade80s	-0.069 (0.571)	-0.054 (0.301)	0.613 (0.921)	0.316*** (0.050)	0.710*** (0.053)
decade90s	0.202 (1.186)	-2.087*** (0.649)	-1.136 (1.723)	0.000 (0.000)	0.000 (0.000)
decade00s	0.202 (1.186)	-2.087*** (0.649)	35.314*** (1.723)	0.000 (0.000)	0.971*** (0.000)
Constant	14.156*** (2.896)	4.881*** (1.640)	33.036*** (5.021)	2.161*** (0.469)	2.759*** (0.315)
N	490	490	378	294	482
R <sup>2</sup>	0.582	0.392	0.715	0.814	0.901

# p<0.15, \* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Figures in cells are Prais-Winsten regression coefficients.

Figures in parentheses are panel corrected standard errors with first-order auto regressive correction.

Time dummies included.

Online appendix table 1.4.1: Time-series Cross-sectional OLS Estimates of Determinants of Social Development and Expenditures across Indian States using Language component of Subnationalism index (1971-2001)

	1.1 Lit	1.2 IMR	2.1 Edu exp	2.2 Med exp	2.3 Non-dev exp
Language	17.246*** (1.453)	-8.011# (5.143)	0.318*** (0.067)	0.252*** (0.072)	-7.572*** (1.280)
Economic development	0.005** (0.001)	-0.014*** (0.003)	0.000*** (0.000)	0.000*** (0.000)	0.003*** (0.001)
Left party rule	2.782* (1.437)	-6.344** (3.233)	0.049 (0.041)	0.049 (0.048)	-0.841 (1.077)
Two party competition	-0.688 (0.629)	1.691 (2.001)	0.053** (0.027)	0.030 (0.028)	-0.834 (0.614)
Closeness of political competition	-0.031* (0.014)	0.114** (0.045)	-0.001** (0.001)	-0.001* (0.001)	-0.002 (0.014)
Ethnic diversity	49.573*** (4.683)	-116.289*** (11.939)	0.497*** (0.139)	-0.277* (0.162)	11.643*** (3.431)
Inequality	0.465 (1.526)	-0.579 (4.750)	0.102 (0.092)	0.244** (0.099)	-4.313*** (1.509)
Poverty	0.068** (0.031)	-0.174* (0.105)	-0.001 (0.001)	-0.002* (0.001)	0.027 (0.030)
Edu exp					
Health exp					
decade70s	2.199*** (0.913)	164.683*** (17.550)	0.142*** (0.039)	0.249*** (0.042)	-3.202*** (0.877)
decade80s	8.831*** (1.101)	150.589*** (17.130)	0.504*** (0.047)	0.584*** (0.052)	-6.059*** (1.045)
decade90s	14.954*** (1.320)	136.265*** (16.672)	0.691*** (0.057)	0.704*** (0.062)	-3.951*** (1.244)
decade00s	27.456*** (2.377)	135.909*** (16.084)			1.823 (2.255)
Constant	1.066 (5.615)		2.101*** (0.332)	1.012*** (0.359)	49.291*** (5.58)
N	491	370	482	482	496
R <sup>2</sup>	0.839	0.623	0.857	0.771	0.688

#  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Figures in cells are Prais-Winsten regression coefficients.

Figures in parentheses are panel corrected standard errors with first-order autoregressive correction.

Time dummies included.

Online appendix table 1.4.2: Time-series Cross-sectional OLS Estimates of Determinants of Social Development and Expenditures across Indian States using Subnational mobilization component of Subnationalism index (1971-2001)

	1.1 Lit	1.2 IMR	2.1 Edu exp	2.2 Med exp	2.3 Non-dev exp
Subnational Mobilization	11.807*** (1.169)	-33.002*** (6.070)	0.179*** (0.061)	0.117* (0.066)	-5.391*** (1.141)
Economic development	0.004** (0.001)	-0.005# (0.003)	0.000*** (0.000)	0.000*** (0.000)	0.003*** (0.001)
Left party rule	2.135 (1.724)	-3.108 (3.055)	0.039 (0.046)	0.048 (0.049)	-0.404 (1.121)
Two party competition	-1.466** (0.680)	2.027 (1.868)	0.044** (0.027)	0.020 (0.028)	-0.357 (0.613)
Closeness of political competition	-0.042*** (0.015)	0.151*** (0.046)	-0.001** (0.001)	-0.001* (0.001)	0.003 (0.015)
Ethnic diversity	45.525*** (5.162)	-97.792*** (10.488)	0.432*** (0.153)	-0.301* (0.168)	13.104*** (3.437)
lginil_son	-0.628 (1.633)	-0.943 (4.657)	0.102 (0.093)	0.248** (0.101)	-3.765** (1.502)
lruralhc	0.066** (0.034)	-0.152# (0.095)	-0.000 (0.001)	-0.002 (0.001)	0.023 (0.030)
Edu exp					
Health exp					
decade70s	3.431*** (1.008)	0.000***	0.163*** (0.038)	0.279*** (0.041)	-4.740*** (0.866)
decade80s	10.449*** (1.201)	-17.005*** (2.803)	0.530*** (0.047)	0.635*** (0.051)	-8.176*** (1.024)
decade90s	16.833*** (1.459)	-35.331*** (3.575)	0.717*** (0.058)	0.753*** (0.062)	-5.646*** (1.250)
decade00s	28.954*** (2.580)	-41.436*** (6.804)			0.152 (2.291)
Constant	7.847 (5.993)	162.524*** (16.198)	2.157*** (0.335)	1.000*** (0.359)	47.286*** (5.480)
N	492	371	486	486	500
R <sup>2</sup>	0.814	0.674	0.8571	0.764	0.671

#  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Figures in cells are Prais-Winsten regression coefficients.

Figures in parentheses are panel corrected standard errors with first-order auto regressive correction.

Time dummies included.

Online appendix table 1.4.3: Time-series Cross-sectional OLS Estimates of Determinants of Social Development and Expenditures across Indian States using Absence of separatist movement component of Subnationalism index (1971-2001)

	1.1 Lit	1.2 IMR	2.1 Edu exp	2.2 Med exp	2.3 Non-dev exp
Absence of Separatist Movement	6.135*** (0.901)	-6.336** (2.913)	0.136*** (0.039)	0.169* (0.040)	-1.363* (0.814)
Economic development	0.007*** (0.001)	-0.015*** (0.003)	0.000*** (0.000)	0.000*** (0.000)	0.001** (0.000)
Left party rule	2.093 (1.708)	-5.056# (3.328)	0.038 (0.046)	0.039 (0.048)	-0.831 (1.135)
Two party competition	-0.881** (0.665)	1.560 (1.985)	0.051* (0.027)	0.027 (0.028)	-0.482 (0.633)
Closeness of political competition	-0.026*** (0.015)	0.109** (0.046)	-0.001* (0.001)	-0.001# (0.001)	-0.004 (0.015)
Ethnic diversity	56.297*** (5.408)	-119.321*** (12.362)	0.631** (0.142)	-0.136* (0.156)	8.936*** (3.463)
llgini	-0.671 (1.653)	0.354 (4.948)	0.099 (0.092)	0.240** (0.098)	-3.784** (1.535)
lruralhc	0.100*** (0.034)	-0.181* (0.108)	0.000 (0.001)	-0.001 (0.001)	0.002 (0.031)
Edu exp					
Health exp					
decade70s	3.356*** (1.004)	161.954*** (18.212)	0.156*** (0.038)	0.282*** (0.040)	-3.941*** (0.897)
decade80s	9.984*** (1.221)	148.744*** (17.792)	0.522*** (0.047)	0.647*** (0.050)	-6.930*** (1.078)
decade90s	15.081*** (1.456)	135.129*** (17.323)	0.697*** (0.057)	0.765*** (0.060)	-4.263*** (1.288)
decade00s	25.455*** (2.547)	135.196*** (16.681)			2.787 (2.321)
Constant	3.556 (6.125)	0.000 (0.000)	2.062*** (0.334)	0.876*** (0.354)	48.239*** (5.610)
N	492	371	486	486	500
R <sup>2</sup>	0.809	0.609	0.852	0.771	0.668

#  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Figures in cells are Prais-Winsten regression coefficients.

Figures in parentheses are panel corrected standard errors with first-order auto regressive correction.

Time dummies included.

Online appendix table 1.4.4: Time-series Cross-sectional OLS Estimates of Determinants of Social Development and Expenditures across Indian States using Subnationalist party component of Subnationalism index (1971-2001)

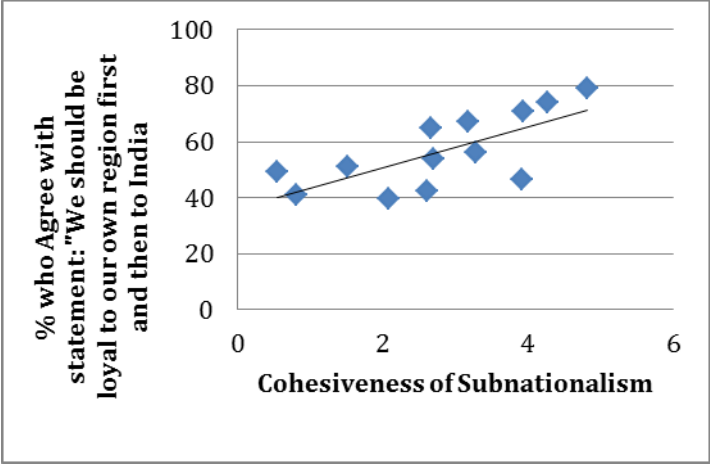
	1.1 Lit	1.2 IMR	2.1 Edu exp	2.2 Med exp	2.3 Non-dev exp
Subnationalist Party	3.024*** (1.035)	-6.479** (3.898)	0.059# (0.039)	0.129*** (0.039)	-1.617* (0.876)
Economic development	0.007*** (0.001)	-0.014*** (0.003)	0.000*** (0.000)	0.000*** (0.000)	0.001** (0.001)
Left party rule	0.920 (1.678)	-4.542 (3.457)	0.042 (0.046)	0.036 (0.049)	-0.719 (1.141)
Two party competition	-0.097** (0.610)	1.851 (1.951)	0.046* (0.027)	0.016 (0.028)	-0.390 (0.625)
Closeness of political competition	-0.014 (0.014)	0.112** (0.046)	-0.001* (0.001)	-0.001# (0.001)	-0.004 (0.015)
Ethnic diversity	50.537*** (6.329)	-109.016*** (13.730)	0.488*** (0.168)	-0.393** (0.171)	11.763*** (3.625)
Inequality	-2.028 (1.681)	2.324 (5.046)	0.097 (0.093)	0.231** (0.099)	-3.384** (1.556)
Poverty	0.017 (0.032)	-0.166# (0.108)	0.000 (0.001)	-0.001 (0.001)	0.003 (0.030)
Edu exp					
Health exp					
decade70s	2.160** (0.971)	0.000	0.137*** (0.039)	0.282*** (0.040)	-3.729*** (0.899)
decade80s	6.729*** (1.221)	-12.700*** (3.040)	0.484*** (0.048)	0.641*** (0.050)	-6.554*** (1.079)
decade90s	10.089*** (1.434)	-25.832*** (3.855)	0.647*** (0.058)	0.746*** (0.060)	-3.879*** (1.288)
decade00s	20.662*** (2.562)	-24.486*** (7.501)			3.458# (2.319)
Constant	19.143*** (6.165)	148.839*** (18.504)	2.221 (0.337)	1.065*** (0.357)	45.375*** (5.630)
N	492	371	486	486	500
R <sup>2</sup>	0.799	0.608	0.849	0.769	0.671

#  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Figures in cells are Prais-Winsten regression coefficients.

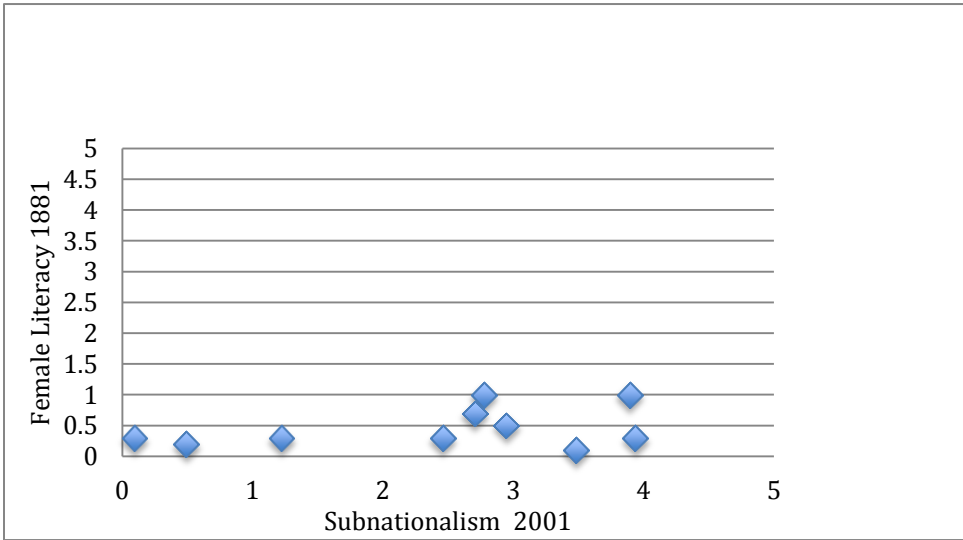
Figures in parentheses are panel corrected standard errors with first-order autoregressive correction. Time dummies included.



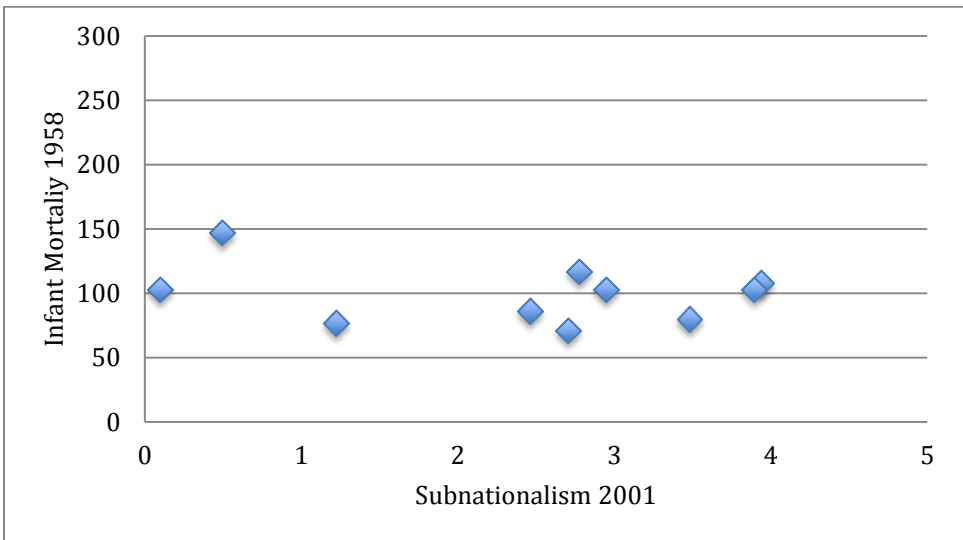


SOURCE: Center for the Study of Developing Societies 1996.

FIGURE A1  
ASSOCIATION BETWEEN SUBNATIONALISM AND  
REGIONAL VS. NATIONAL LOYALTY



RELATIONSHIP BETWEEN FEMALE LITERACY (1881)  
AND SUBNATIONALISM (2001) ACROSS INDIAN STATES  
(a)



RELATIONSHIP BETWEEN INFANT MORTALITY (1958)  
AND SUBNATIONALISM (2001) ACROSS INDIAN STATES  
(b)

FIGURE A2