

1 **Supplementary file 2: Network descriptors and the correlations between them.**

2 **S2 Table 1 - Network descriptors values for Acrean municipalities.**

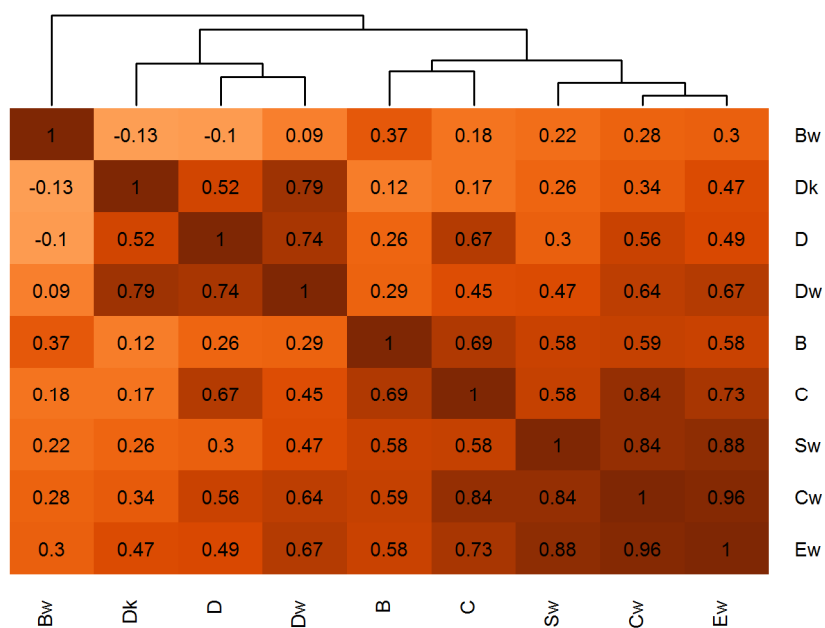
Acronym	Municipality	Sw	Ew	Dw	Dk	Bw	Cw	B	D	C
RB	Rio Branco	0.254	0.672	0.000	0.000	0.505	103.849	0.631	0.000	0.396
SG	Senador Guiomard	0.105	0.521	0.443	0.035	0.000	98.183	0.414	1.000	0.344
Brl	Brasiléia	0.084	0.094	0.212	0.004	0.024	67.162	0.095	0.250	0.196
SM	Sena Madureira	0.034	0.137	0.272	0.007	0.024	83.239	0.152	0.500	0.280
Epcd	Epitaciolândia	0.065	0.079	0.193	0.004	0.000	63.542	0.181	0.333	0.236
Xpr	Xapuri	0.025	0.067	0.209	0.005	0.000	63.074	0.000	0.333	0.226
Cpb	Capixaba	0.024	0.101	0.229	0.012	0.024	67.958	0.338	0.500	0.288
Acld	Acrelândia	0.018	0.071	0.229	0.008	0.005	67.827	0.033	1.000	0.296
PC	Plácido de Castro	0.035	0.151	0.237	0.009	0.014	76.340	0.014	0.500	0.266
CZS	Cruzeiro do Sul	0.103	0.194	0.284	0.001	0.167	91.441	0.417	1.000	0.356
AB	Assis Brasil	0.019	0.025	0.161	0.003	0.005	53.824	0.000	0.200	0.165
PA	Porto Acre	0.053	0.298	0.354	0.016	0.000	93.311	0.000	1.000	0.288
Bjr	Bujari	0.038	0.223	0.327	0.039	0.000	90.875	0.202	1.000	0.323
Fj	Feijó	0.020	0.070	0.225	0.003	0.000	67.016	0.069	0.250	0.233
Trc	Tarauacá	0.017	0.054	0.214	0.002	0.076	63.651	0.179	0.333	0.269
MU	Manoel Urbano	0.006	0.020	0.177	0.004	0.000	36.062	0.145	0.333	0.250
RA	Rodrigues Alves	0.042	0.080	0.180	0.002	0.000	82.303	0.205	0.500	0.309
ML	Mâncio Lima	0.037	0.085	0.199	0.001	0.000	79.606	0.000	0.500	0.288
SRP	Santa Rosa do Purus	0.003	0.010	0.157	0.002	0.000	21.106	0.000	0.250	0.202
MT	Marechal Thaumaturgo	0.005	0.008	0.136	0.001	0.005	31.656	0.000	0.333	0.216
PW	Porto Walter	0.009	0.018	0.144	0.001	0.000	58.011	0.095	0.500	0.273
Jrd	Jordão	0.002	0.001	0.128	0.001	0.000	25.571	0.000	0.250	0.214

- 3 **B**: betweenness
- 4 **C**: closeness
- 5 **B<sub>w</sub>**: weighted betweenness
- 6 **C<sub>w</sub>**: weighted closeness
- 7 **E<sub>w</sub>**: eigenvector
- 8 **S<sub>w</sub>**: strength
- 9 **D**: network distance from Rio Branco in degrees
- 10 **D<sub>w</sub>**: effective distance from Rio Branco
- 11 **D<sub>k</sub>**: network distance from Rio Branco in kilometers

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### 13 Heatmap

14           To evaluate how correlated the network descriptors are to each other, a heatmap was  
15 constructed ranging from beige tones to brown (maximum correlation = 1). We can see a  
16 strong correlation between topological distance from Rio Branco, measured by effective and  
17 degree distance, and node relevance to information flow in the network, measured by  
18 eigenvector and closeness centrality. Geographical distance, although also showing positive  
19 correlation is not so strong. This highlights that human mobility is not only dependant on  
20 distance, but also on ease of access and infrastructure. Likewise, weighted betweenness  
21 centrality also does not have a strong signal with other measures. This might be due to the  
22 relatively small size of the network.



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24 **S2 Fig 1. Heatmap of the spearman correlation between node centrality measures used**  
 25 **on the structural and mobility networks.**

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