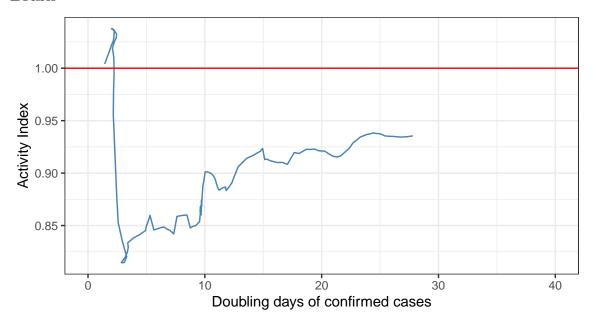
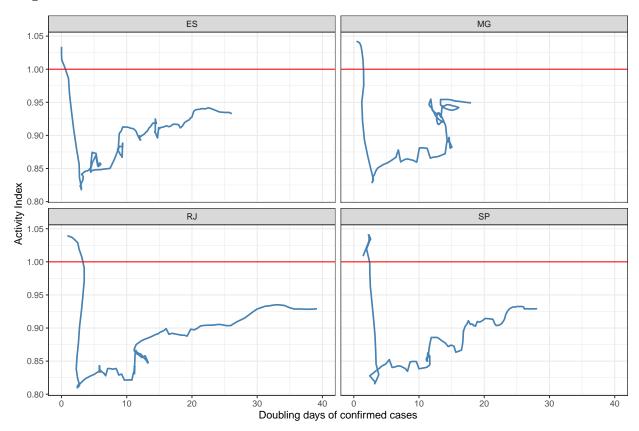
Atividade x COVID

Usando dados de mobilidade

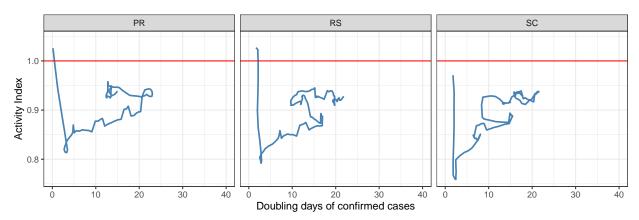
Brasil



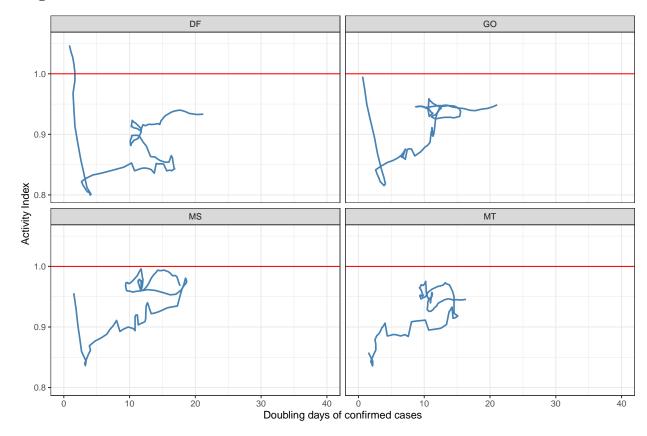
Região Sudeste



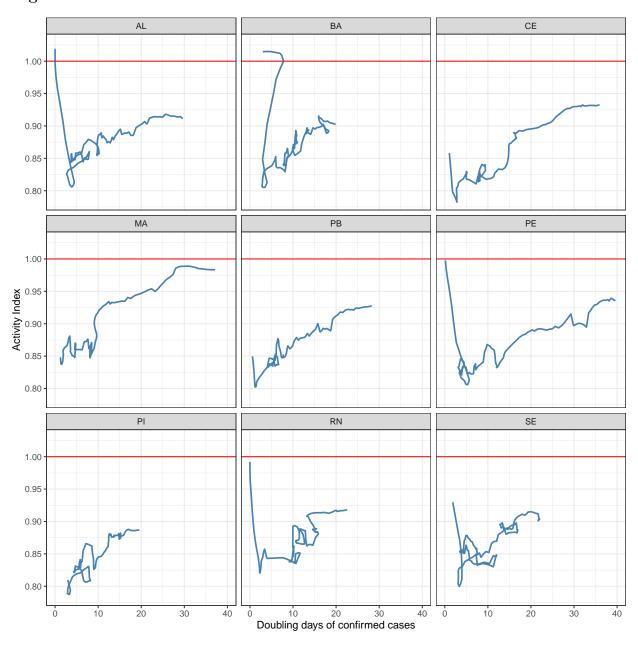
Região Sul



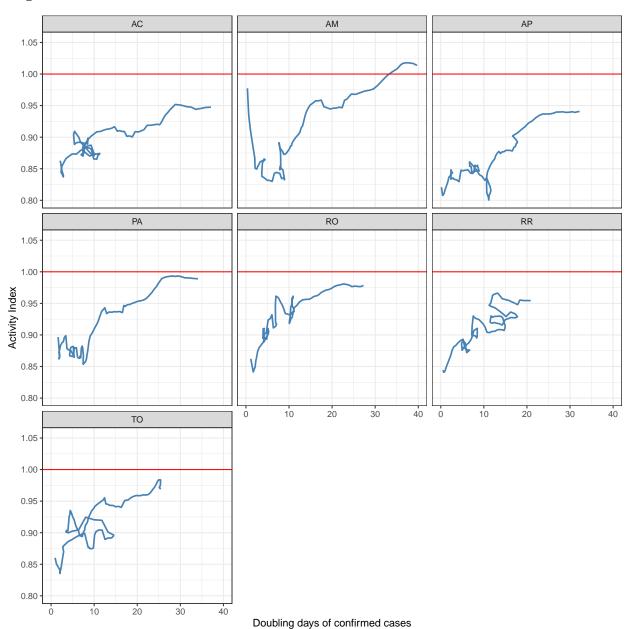
Região Centro-Oeste



Região Nordeste



Região Norte



Usando dados de energia

Trocando os dados de mobilidade pela diferença percentual entre o consumo de energia atual e o esperado.

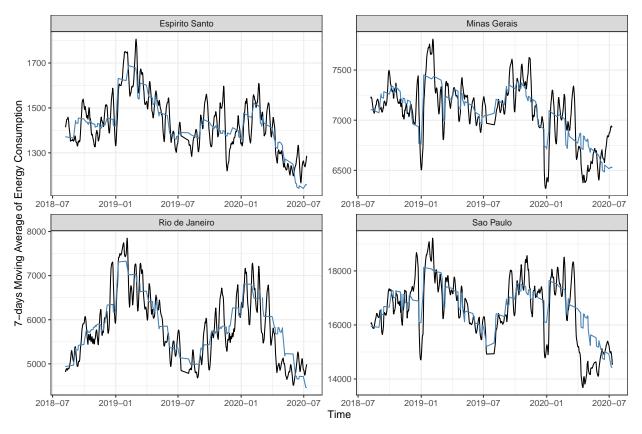
Para definir o contrafactual, fazemos uma regressão para cada estado, com os dados de 08/2018 até 02/2020, da seguinte forma:

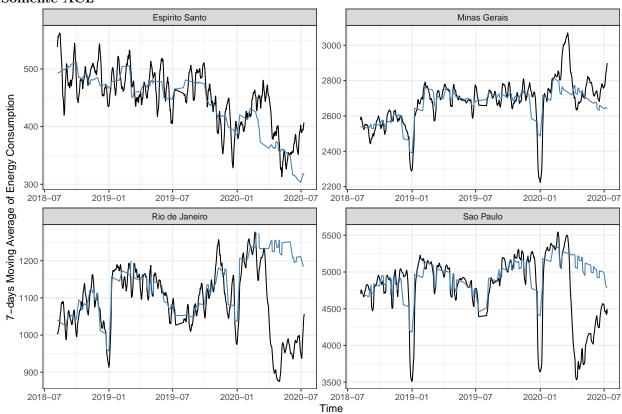
Consumo Diario_t =
$$\beta_0 + \sum_{i=2}^{3} \psi_i D_{\text{ano}_{it}} + \sum_{i=2}^{12} \delta_i D_{\text{mês}_{it}} + \sum_{i=2}^{7} \lambda_i D_{\text{dia da semana}_{it}} + \sum_{i=2}^{k} \theta_i D_{\text{feriado}_{it}} + \phi_1 t + \phi_2 t^2 + \epsilon_t$$
 (1)

A partir de 1, usamos os valores preditos para os dados a partir de Março de 2020 como o esperado para o consumo de energia. A diferença percentual mostrada nos gráficos abaixo se baseia nesses valores.

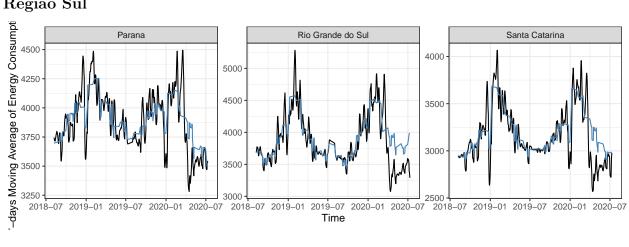
Testando o fit

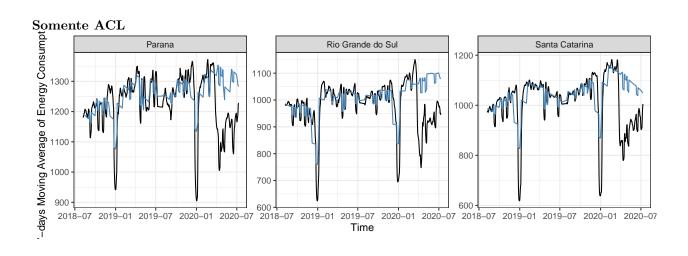
Região Sudeste



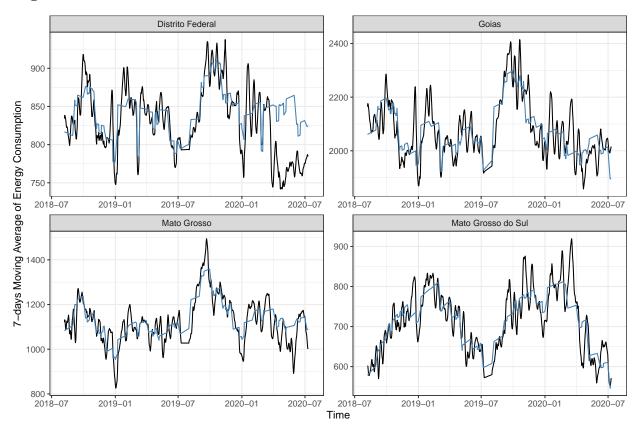


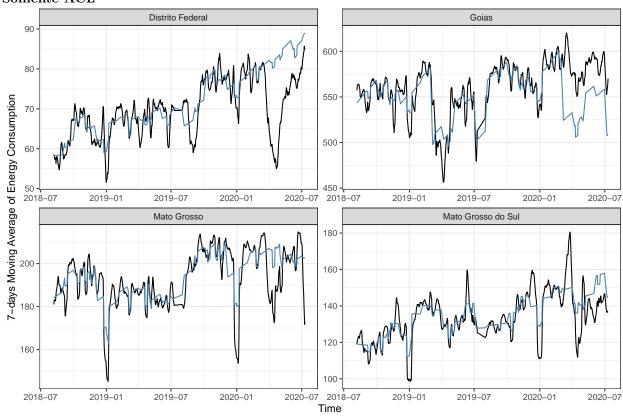
Região Sul



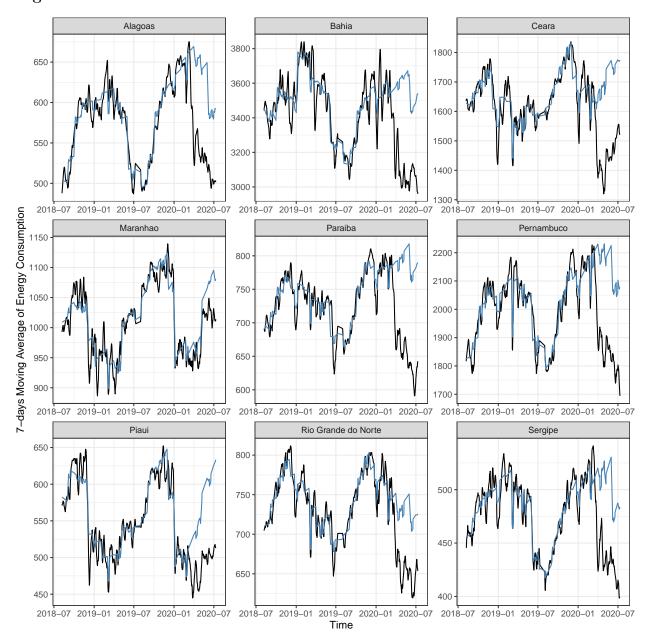


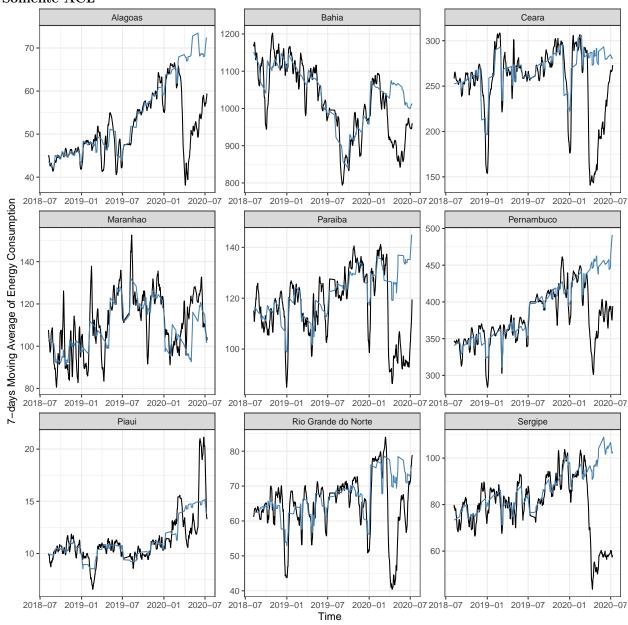
Região Centro-Oeste



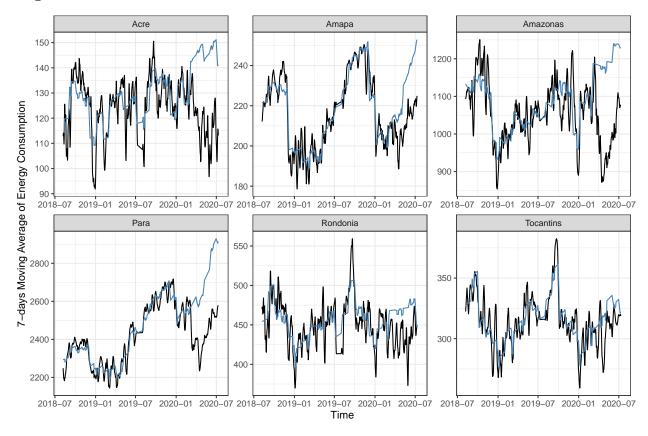


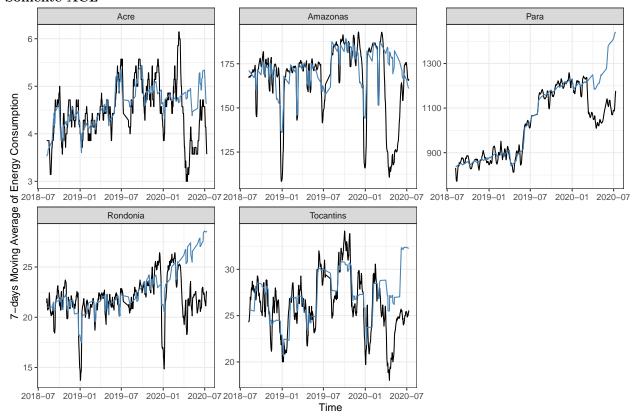
Região Nordeste





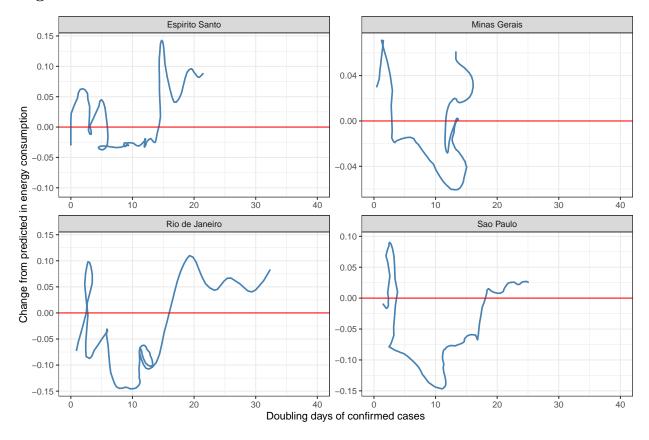
Região Norte

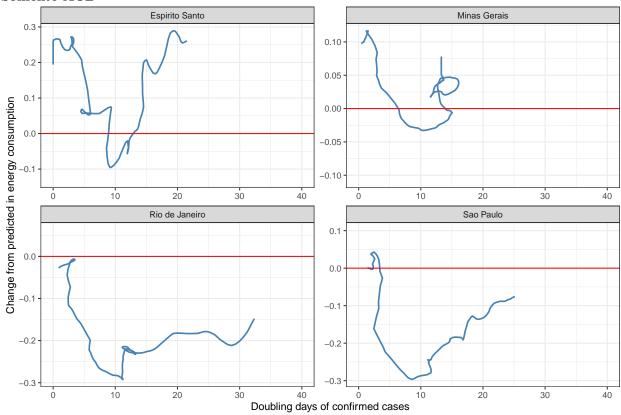




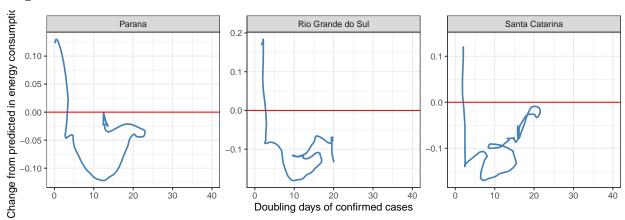
Mudança para o previsto

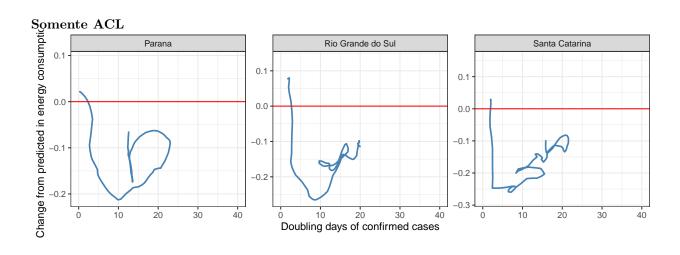
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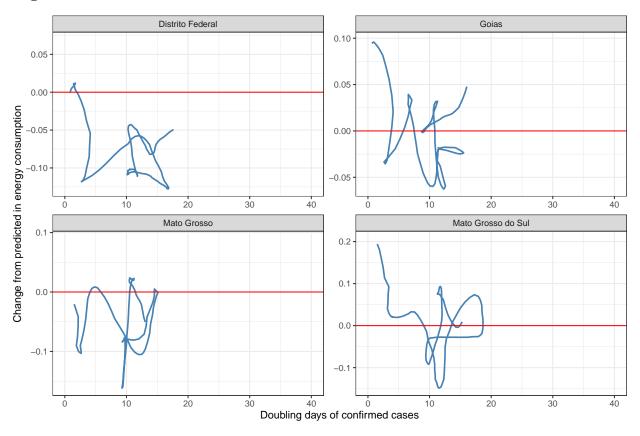


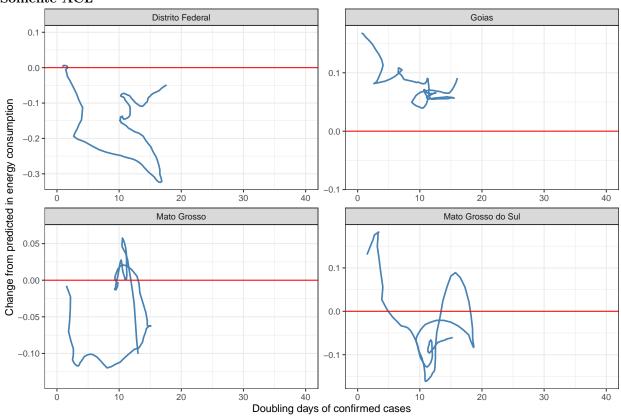
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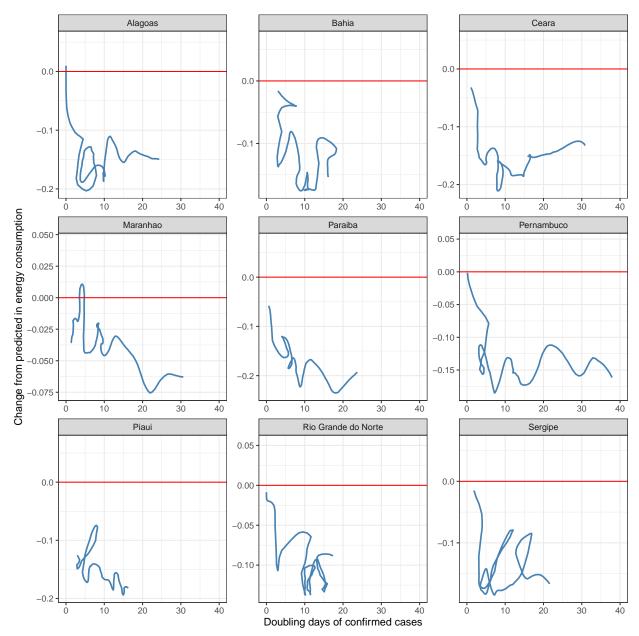


Região Centro-Oeste

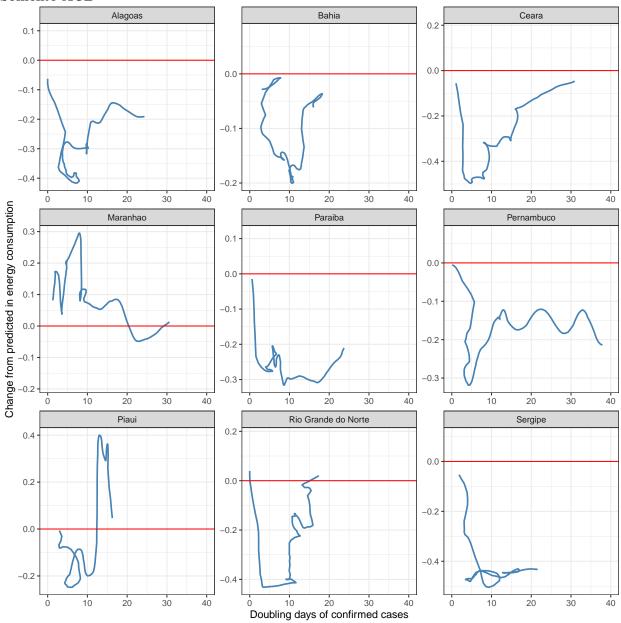




Região Nordeste







Região Norte

