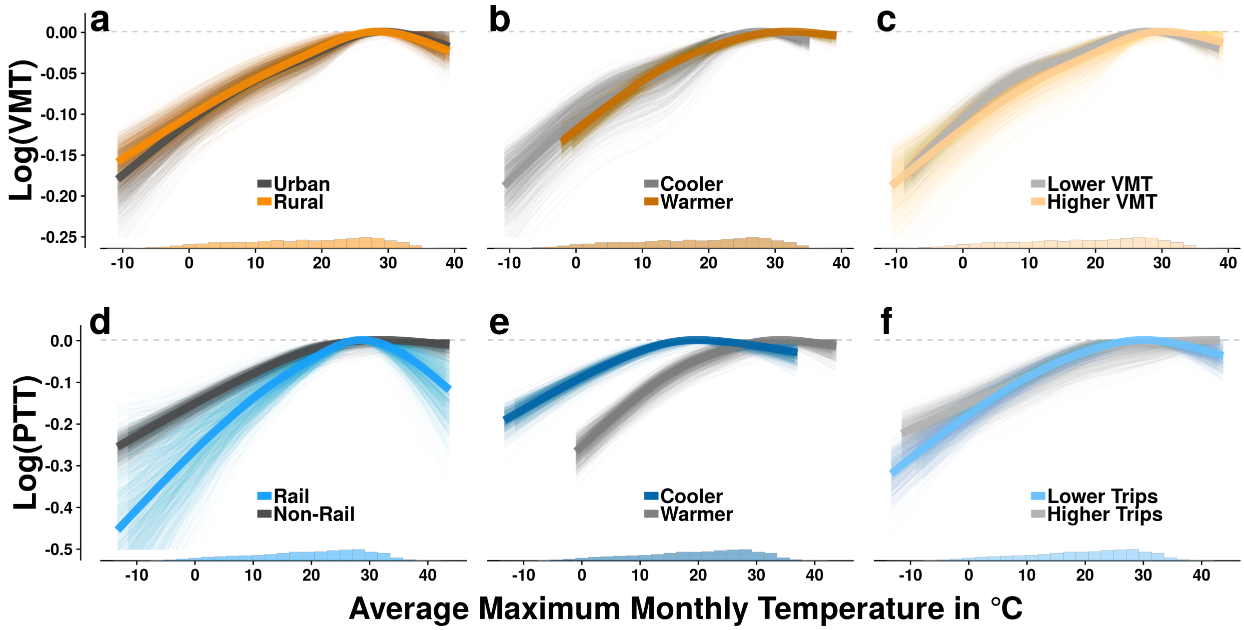

Fig. S1: Plot of heterogeneous effects. This figure plots the heterogeneous tests for each of VMT and PTT. Panel (a) plots the effects of temperature on VMT in urban centers as compared to these effects on VMT in rural areas. Panel (b) breaks out the sample of states along median average maximum temperatures and conducts the splined regressions for each half of the sample. Panel (c) calculates average VMT per capita in our sample and splits the sample along the median of this metric. Across panels (a)-(c) we observe little evidence of heterogeneous effects; temperatures appear to have very similar effects on VMT across context. Panel (e) breaks out PTT by those that occur via rail versus those that occur via non-rail means (primarily bus travel). Rail travel responds more acutely to extreme temperatures, though non-rail travel also decreases in cold temperatures. Panel (f) splits the sample by median average maximum temperatures and indicates that warmer states have more acute responses to colder temperatures than do colder states. Panel (g) splits the sample by median PTT per capita and indicates that temperature impacts states similarly across baseline transit usage. In each panel, error regions are given by conducting and plotting 1,000 cluster bootstrapped spline regressions for each sample.

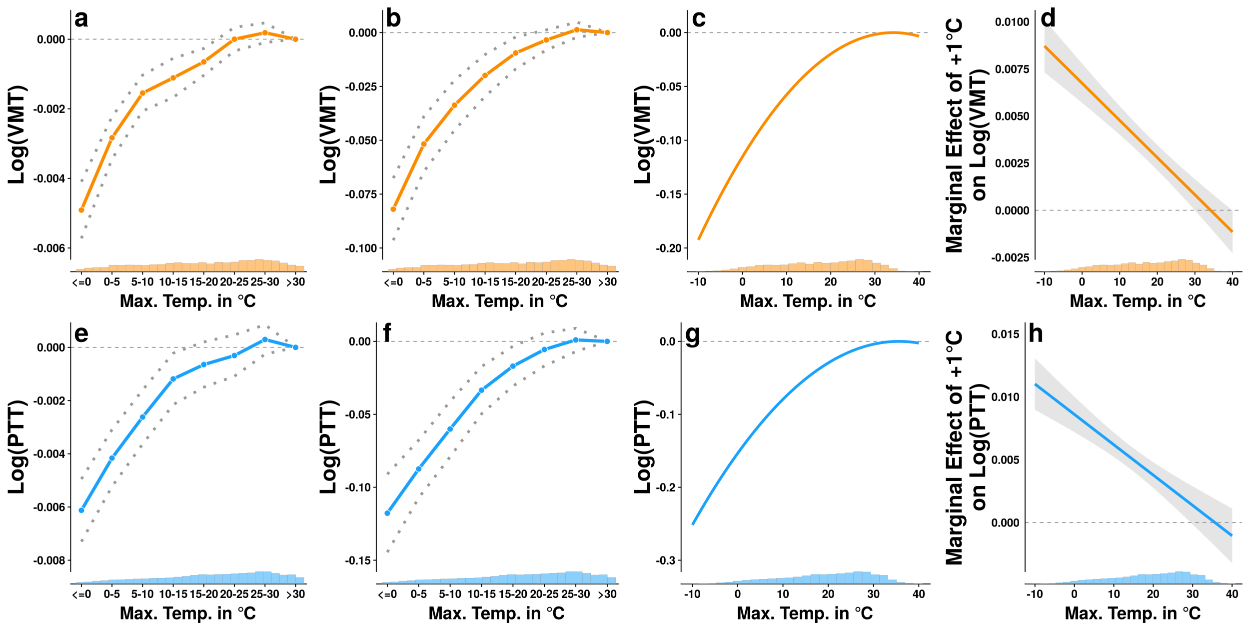

Fig. S2: Plot of various robustness checks of main results. This figure plots the results of robustness checks that vary model specification for each of VMT and PTT. Panel (a) plots the results of pulling in the full distribution of temperature during each calendar month and estimating the regression using these five-degree Celsius binned counts of daily temperature. In this model the y-axis can be interpreted as the effect of one additional day in a specific temperature range out of the month on the log of VMT. Panel (b) also conducts a non-parametric binned regression, where average monthly temperatures are separated into five-degree Celsius bins. The y-axis in this regression can be interpreted as the effect of a monthly temperature falling into a particular temperature range. Panel (c) plots the fitted values from using a quadratic parameterization of monthly maximum temperatures. Panel (d) plots the marginal effects and confidence intervals of these marginal effects for the quadratic results presented in (c). Panels (e) through (h) replicate these modeling procedures for the PTT outcome variable. Across each of these parametric and non-parametric specifications of temperature, the main results from our splined regressions in the main text hold. Warmer temperatures, up to approximately 30C, increase both VMT and PTT. Error lines and regions represent 95% confidence intervals.

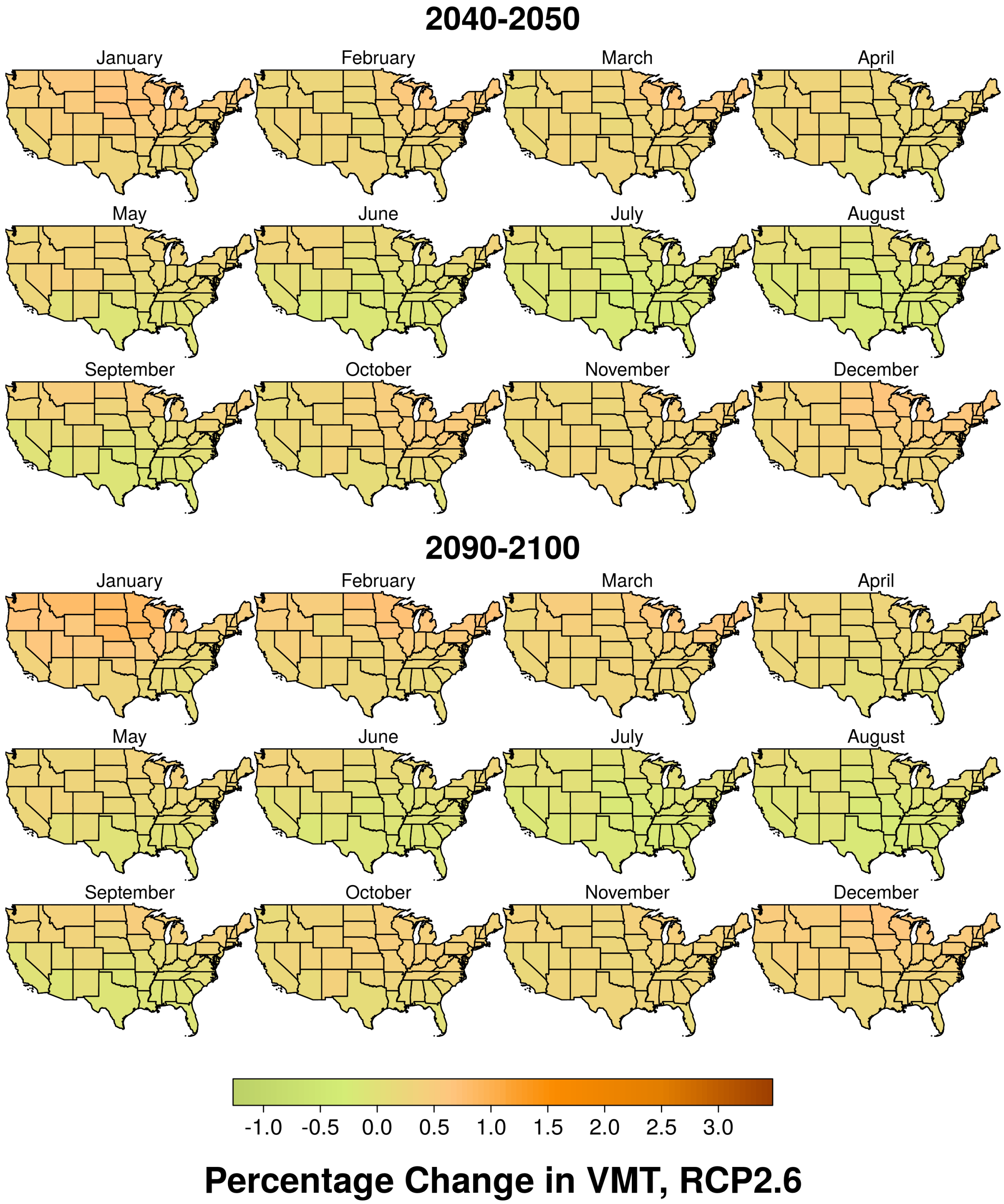

Fig. S1: Plot of monthly projected mean percentage changes in vehicle miles traveled 2040-2050 and 2090-2100 across the RCP2.6 emissions scenario. This figure replicates the methods of Figure 4 from the main text across the RCP2.6 emissions scenario. The RCP2.6 emissions scenario results in lower projected changes in future VMT.

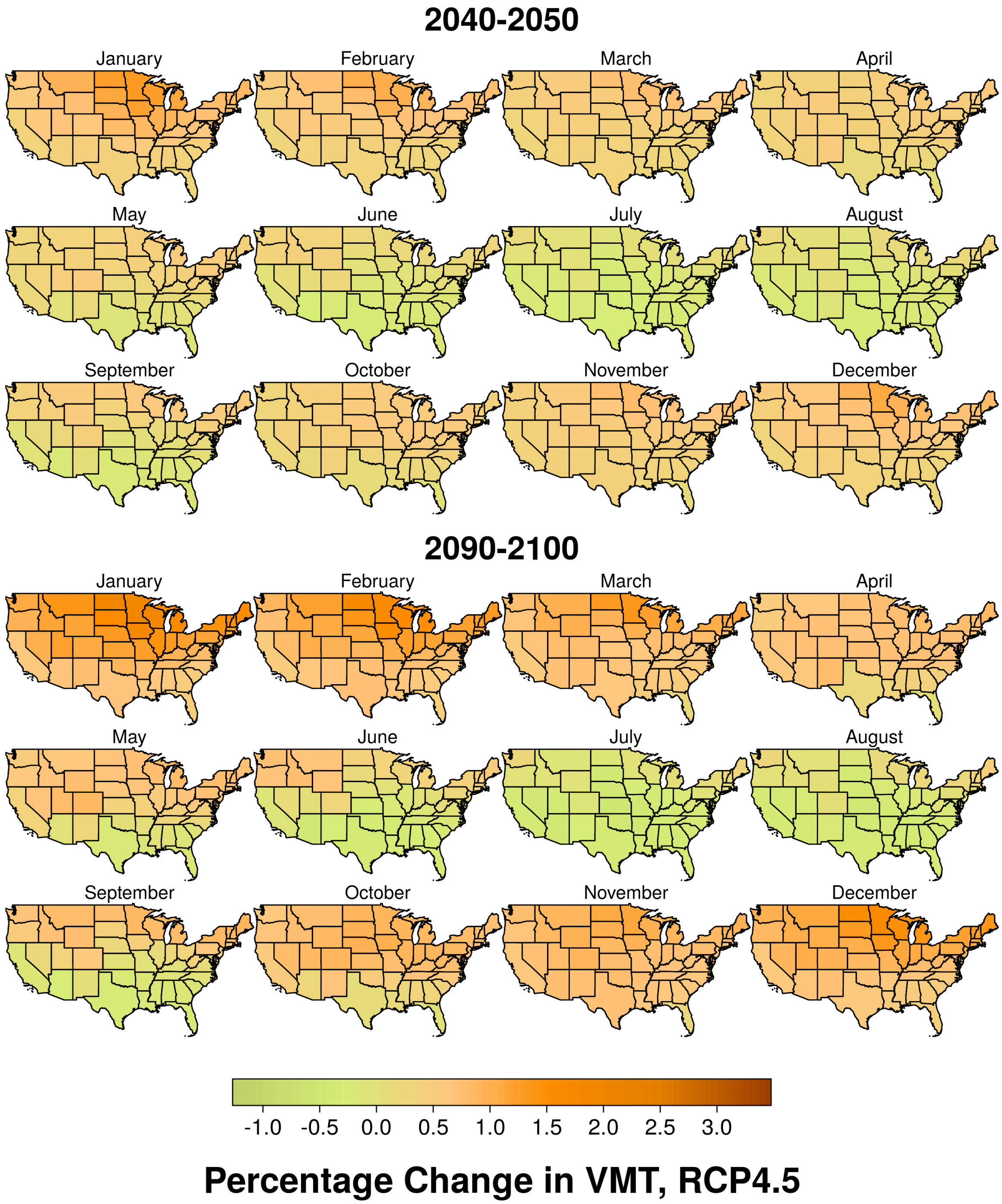

Fig. S2: Plot of monthly projected mean percentage changes in vehicle miles traveled 2040-2050 and 2090-2100 across the RCP4.5 emissions scenario. This figure replicates the methods of Figure 4 from the main text across the RCP4.5 emissions scenario. Winter months observe increases in VMT while summer months observe decreases. The RCP4.5 emissions scenario results in middle-range projected changes in future VMT.

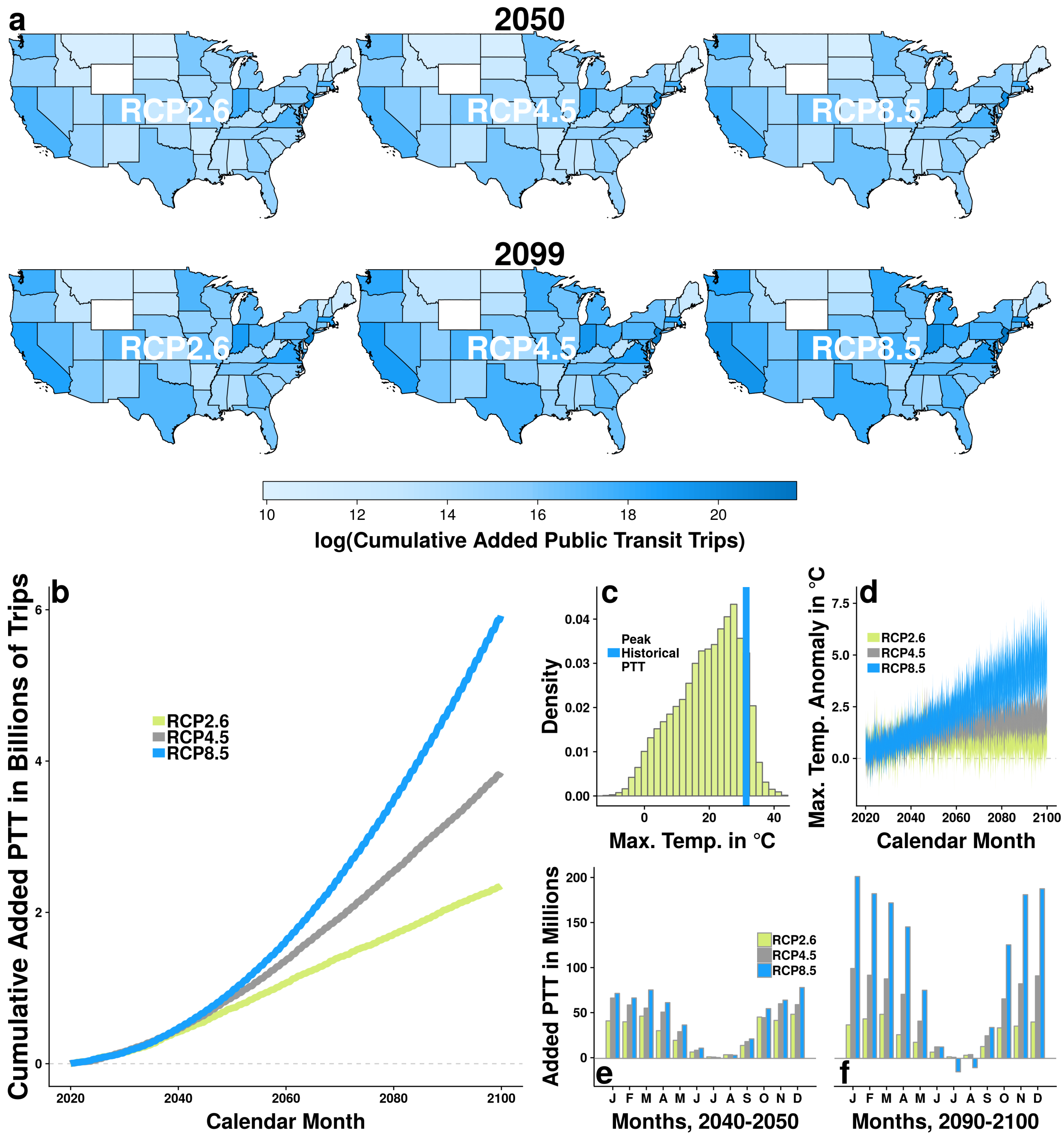

Fig. S5: Climate change may amplify future public transit trips. Panel (a) plots the by-state log of projected cumulative added PTT by 2050 and 2099 across emissions scenarios. We map metropolitan areas into the states where the centroid of the metropolitan boundary area falls. Wyoming lacks baseline data during this period and so is omitted from the projection. Panel (b) displays the time-series of projected cumulative added PTT due to future warming over the entire US. Under RCP8.5, future US warming may produce nearly six billion cumulative added PTT by 2100. Panel (c) plots historical maximum monthly temperatures from our sample and the peak of the relationship between maximum temperatures and log(PTT). Approximately 90% of historical temperatures fall below this peak. Panel (d) plots monthly temperature anomaly projections relative to the 2006-2020 baseline for each state from 2020 to 2100. Panels (e) and (f) plot sumtotal added PTT during each month of the year for 2040-2050 and 2090-2100.

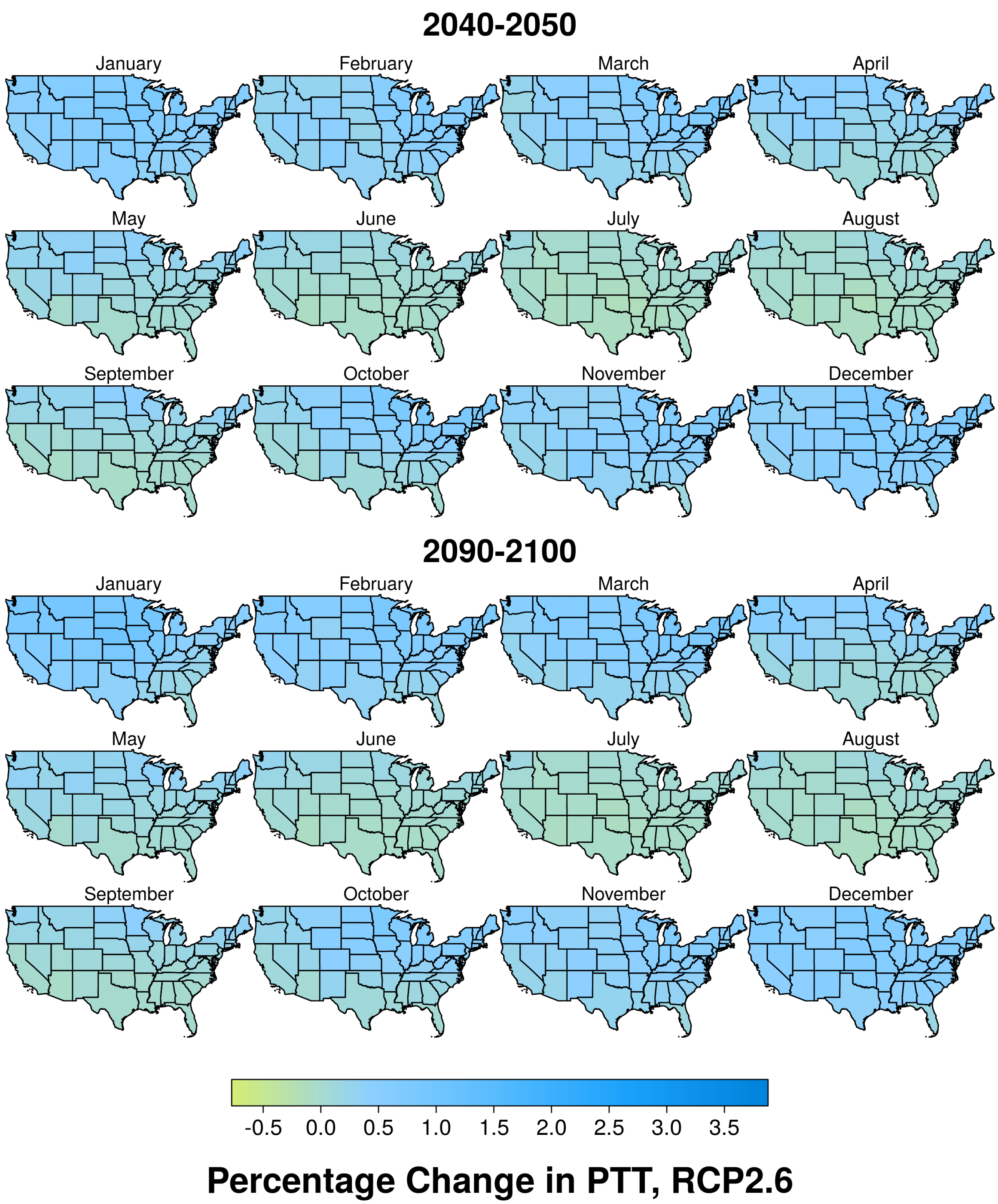

Fig. S3: Plot of monthly projected mean percentage changes in public transit trips 2040-2050 and 2090-2100 across the RCP2.6 emissions scenario. This figure replicates the methods of Figure 4 from the main text across the RCP2.6 emissions scenario for PTT. We map metropolitan areas into the states where the centroid of the metropolitan boundary area falls. Wyoming lacks baseline data during this period and so is omitted from the projection. The RCP2.6 emissions scenario results in lower projected changes in future PTT.

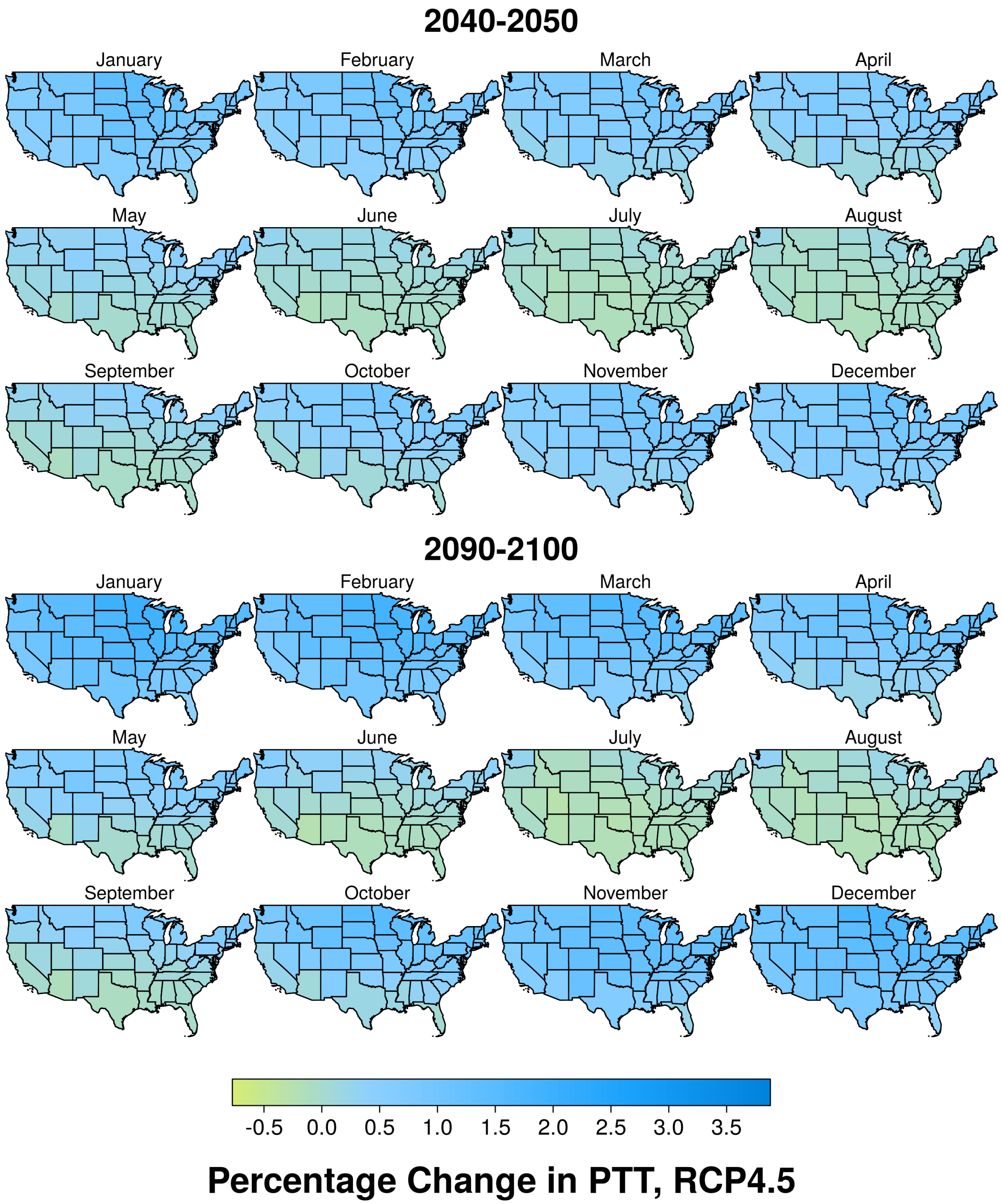

Fig. S4: Plot of monthly projected mean percentage changes in public transit trips 2040-2050 and 2090-2100 across the RCP4.5 emissions scenario. This figure replicates the methods of Figure 4 from the main text across the RCP4.5 emissions scenario for PTT. We map metropolitan areas into the states where the centroid of the metropolitan boundary area falls. Wyoming lacks baseline data during this period and so is omitted from the projection. The RCP4.5 emissions scenario results in middle-range projected changes in future PTT.

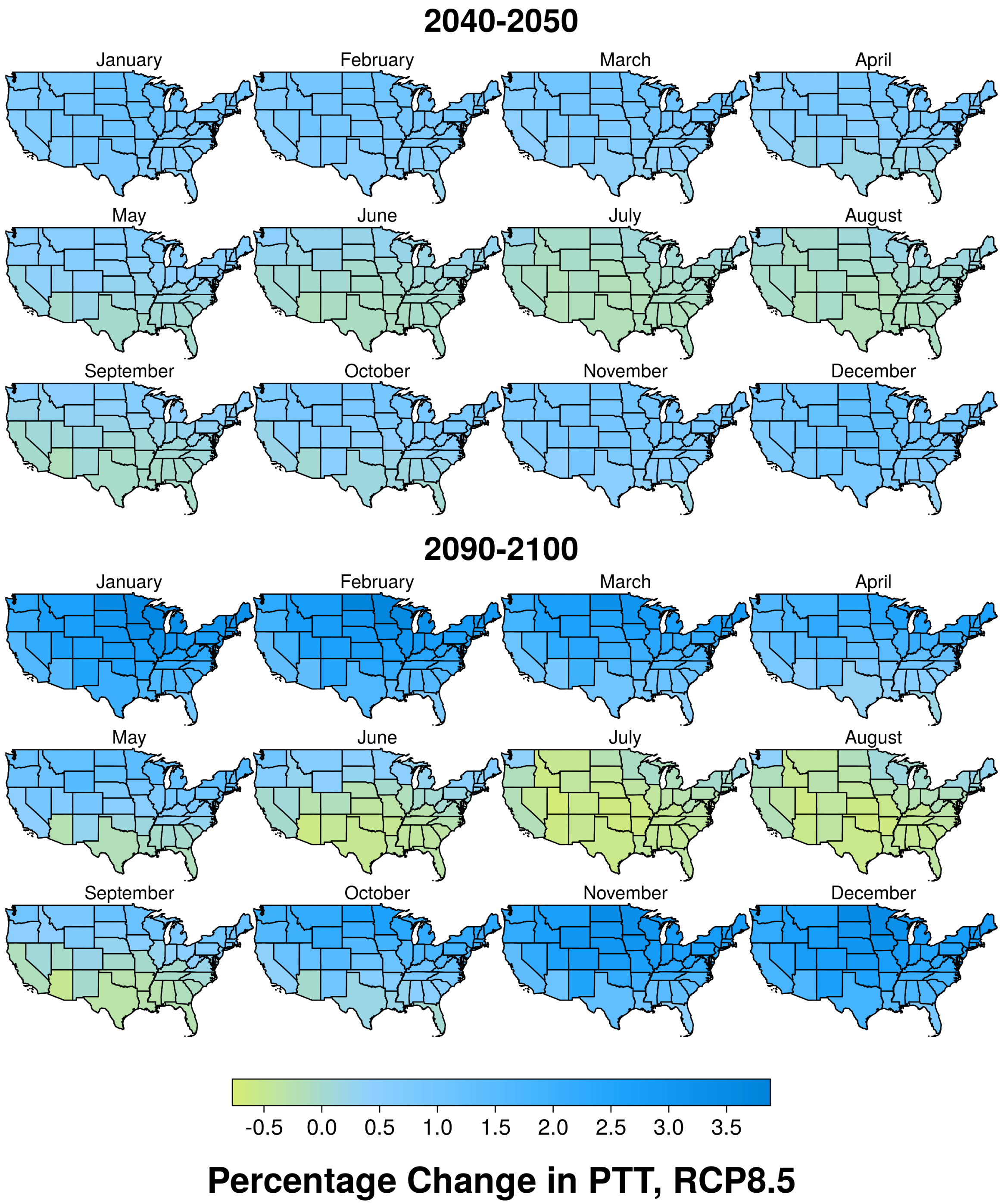

Fig. S5: Plot of monthly projected mean percentage changes in public transit trips 2040-2050 and 2090-2100 across the RCP8.5 emissions scenario. This figure replicates the methods of Figure 4 from the main text across the RCP8.5 emissions scenario for PTT. We map metropolitan areas into the states where the centroid of the metropolitan boundary area falls. Wyoming lacks baseline data during this period and so is omitted from the projection. The RCP8.5 emissions scenario results in higher-range projected changes in future PTT.

Table S1: Splined Regressions from Equation 1 for VMT and PTT

	Dependent variable:	
	VMT	PTT
	(1)	(2)
TMAX SPLINE 1	0.168***	0.246***
	(0.012)	(0.020)
TMAX SPLINE 2	0.165***	0.211***
	(0.018)	(0.019)
TMAX SPLINE 3	0.306***	0.405***
	(0.032)	(0.041)
TMAX SPLINE 4	0.113***	0.164***
	(0.011)	(0.027)
TRANGE	−0.001	−0.001
	(0.001)	(0.001)
PRCP.DAYS	−0.001***	−0.001***
	(0.0003)	(0.0002)
HUMID	−0.0001	0.0001
	(0.0001)	(0.0001)
CLOUD	−0.0001	−0.0002
	(0.0002)	(0.0002)
WIND	−0.001	−0.003**
	(0.001)	(0.001)
State:Month FE	Yes	No
State:Year FE	Yes	No
City:Month FE	No	Yes
City:Year FE	No	Yes
Observations	8,208	59,590
R^2	0.999	0.996
Adjusted R^2	0.998	0.995
Residual Std. Error	0.040	0.136

Note: *p<0.1; **p<0.05; ***p<0.01

Standard errors in parentheses are clustered on state (VMT) and city (PTT).