**Case Growth Rate 🡨 Trump**

Mixed-effects ML regression Number of obs = 244,934

-------------------------------------------------------------

| No. of Observations per Group

Group Variable | Groups Minimum Average Maximum

----------------+--------------------------------------------

state\_fips | 50 82 4,898.7 19,188

county\_fips | 2,987 82 82.0 82

-------------------------------------------------------------

Wald chi2(20) = 1690.25

Log likelihood = -1116319.8 Prob > chi2 = 0.0000

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caseRate | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------------------------+----------------------------------------------------------------

z\_trump | -.3537805 .090958 -3.89 0.000 -.5320548 -.1755062

state\_policy2 | .9104781 .0562734 16.18 0.000 .8001844 1.020772

demgov2 | -.3066376 .1965761 -1.56 0.119 -.6919196 .0786444

weekend2 | -.0635556 .0769994 -0.83 0.409 -.2144717 .0873606

z\_median\_household\_income\_2018 | .7363892 .0862936 8.53 0.000 .5672568 .9055216

z\_medianage\_county\_2018 | -.0406523 .1536053 -0.26 0.791 -.3417132 .2604085

z\_pct\_age0to17 | .486493 .3806313 1.28 0.201 -.2595305 1.232517

z\_pct\_age18to64 | .4827339 .4116097 1.17 0.241 -.3240063 1.289474

z\_pct\_age65to84 | -.0282499 .4825418 -0.06 0.953 -.9740145 .9175147

z\_difflifeexp | .0130772 .058303 0.22 0.823 -.1011946 .1273491

z\_pop\_density | .1419611 .0534221 2.66 0.008 .0372558 .2466665

z\_supermarkets | -.5263704 .0596178 -8.83 0.000 -.6432191 -.4095216

z\_supermarketsLow | -.076033 .0521317 -1.46 0.145 -.1782092 .0261433

z\_religion | -.0788389 .0654459 -1.20 0.228 -.2071106 .0494327

z\_percentEmployed | .1793662 .074273 2.41 0.016 .0337937 .3249386

z\_gini | .3108208 .0625244 4.97 0.000 .1882753 .4333663

z\_avgtimetowork | -.0118557 .0674637 -0.18 0.861 -.1440821 .1203706

z\_perc\_black | .6377928 .0963063 6.62 0.000 .449036 .8265497

z\_perc\_asian | .1640177 .0735369 2.23 0.026 .019888 .3081474

z\_perc\_hisplatin | .4130412 .0830508 4.97 0.000 .2502646 .5758178

\_cons | 5.929085 .1720066 34.47 0.000 5.591958 6.266212

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Random-effects Parameters | Estimate Std. Err. [95% Conf. Interval]

-----------------------------+------------------------------------------------

state\_fips: Identity |

var(\_cons) | 1.213183 .3129852 .7316905 2.011523

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county\_fips: Identity |

var(\_cons) | 4.69e-13 4.08e-11 3.37e-87 6.53e+61

-----------------------------+------------------------------------------------

var(Residual) | 532.1575 1.52084 529.1851 535.1467

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LR test vs. linear model: chi2(2) = 280.19 Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

**Case Growth Rate 🡨 Trump + Employment Categories**

Mixed-effects ML regression Number of obs = 160,720

-------------------------------------------------------------

| No. of Observations per Group

Group Variable | Groups Minimum Average Maximum

----------------+--------------------------------------------

state\_fips | 50 82 3,214.4 9,758

county\_fips | 1,960 82 82.0 82

-------------------------------------------------------------

Wald chi2(38) = 927.28

Log likelihood = -739083 Prob > chi2 = 0.0000

------------------------------------------------------------------------------------------------

caseRate | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------------------------+----------------------------------------------------------------

z\_trump | -.2682689 .1304597 -2.06 0.040 -.5239651 -.0125726

state\_policy2 | .5250777 .0708461 7.41 0.000 .3862218 .6639336

demgov2 | -.1935139 .1695765 -1.14 0.254 -.5258777 .1388499

weekend2 | .0341199 .0990315 0.34 0.730 -.1599782 .228218

z\_median\_household\_income\_2018 | .1633346 .1248281 1.31 0.191 -.0813239 .4079932

z\_medianage\_county\_2018 | -.0091914 .2291539 -0.04 0.968 -.4583248 .439942

z\_pct\_age0to17 | .242688 .6439545 0.38 0.706 -1.01944 1.504816

z\_pct\_age18to64 | .1947505 .6983695 0.28 0.780 -1.174029 1.56353

z\_pct\_age65to84 | -.1653402 .8399587 -0.20 0.844 -1.811629 1.480949

z\_difflifeexp | .0636384 .0734422 0.87 0.386 -.0803056 .2075824

z\_pop\_density | .0570173 .0597167 0.95 0.340 -.0600252 .1740598

z\_supermarkets | -.4767867 .1212401 -3.93 0.000 -.714413 -.2391604

z\_supermarketsLow | .0006306 .0999127 0.01 0.995 -.1951947 .1964558

z\_religion | -.020281 .0913414 -0.22 0.824 -.1993069 .1587448

z\_percentEmployed | .216743 .1237377 1.75 0.080 -.0257784 .4592644

z\_pct\_emp\_agri\_2016 | -.2811927 .1254702 -2.24 0.025 -.5271098 -.0352757

z\_pct\_emp\_mini\_2016 | -.2350383 .1027965 -2.29 0.022 -.4365157 -.0335609

z\_pct\_emp\_util\_2016 | .1105756 .0906163 1.22 0.222 -.0670292 .2881803

z\_pct\_emp\_cons\_2016 | .0270596 .0891178 0.30 0.761 -.1476081 .2017274

z\_pct\_emp\_manu\_2016 | .2970455 .1380283 2.15 0.031 .0265149 .5675761

z\_pct\_emp\_whol\_2016 | .1877982 .1010808 1.86 0.063 -.0103166 .385913

z\_pct\_emp\_reta\_2016 | -.0651186 .0992747 -0.66 0.512 -.2596934 .1294561

z\_pct\_emp\_tran\_2016 | .1114156 .07467 1.49 0.136 -.034935 .2577662

z\_pct\_emp\_info\_2016 | .0180155 .0711633 0.25 0.800 -.1214621 .1574931

z\_pct\_emp\_fina\_2016 | .1006741 .0726179 1.39 0.166 -.0416543 .2430026

z\_pct\_emp\_real\_2016 | .1874425 .077713 2.41 0.016 .0351278 .3397571

z\_pct\_emp\_prof\_2016 | .203505 .093007 2.19 0.029 .0212147 .3857954

z\_pct\_emp\_mana\_2016 | .30104 .0714197 4.22 0.000 .16106 .44102

z\_pct\_emp\_admi\_2016 | .4676129 .0782145 5.98 0.000 .3143152 .6209105

z\_pct\_emp\_educ\_2016 | .2758704 .0661252 4.17 0.000 .1462673 .4054734

z\_pct\_emp\_heal\_2016 | .2741655 .119691 2.29 0.022 .0395755 .5087556

z\_pct\_emp\_arts\_2016 | .1225729 .0927849 1.32 0.186 -.0592822 .3044279

z\_pct\_emp\_acco\_2016 | .0803683 .1104309 0.73 0.467 -.1360723 .2968089

z\_gini | .0669017 .0930469 0.72 0.472 -.1154669 .2492703

z\_avgtimetowork | .3329792 .1058884 3.14 0.002 .1254417 .5405167

z\_perc\_black | .5635701 .1343031 4.20 0.000 .3003408 .8267995

z\_perc\_asian | -.019507 .0799945 -0.24 0.807 -.1762934 .1372793

z\_perc\_hisplatin | .6913459 .1160425 5.96 0.000 .4639069 .918785

\_cons | 6.266608 .1512531 41.43 0.000 5.970157 6.563059

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Random-effects Parameters | Estimate Std. Err. [95% Conf. Interval]

-----------------------------+------------------------------------------------

state\_fips: Identity |

var(\_cons) | .7337378 .2194026 .4083328 1.318462

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county\_fips: Identity |

var(\_cons) | 1.89e-15 2.20e-15 1.92e-16 1.86e-14

-----------------------------+------------------------------------------------

var(Residual) | 577.5636 2.037783 573.5834 581.5714

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LR test vs. linear model: chi2(2) = 86.59 Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

**Death Growth Rate 🡨 Trump**

Mixed-effects ML regression Number of obs = 244,934

-------------------------------------------------------------

| No. of Observations per Group

Group Variable | Groups Minimum Average Maximum

----------------+--------------------------------------------

state\_fips | 50 82 4,898.7 19,188

county\_fips | 2,987 82 82.0 82

-------------------------------------------------------------

Wald chi2(20) = 2250.24

Log likelihood = -976934.45 Prob > chi2 = 0.0000

------------------------------------------------------------------------------------------------

deathRate | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------------------------+----------------------------------------------------------------

z\_trump | -.3815142 .0658096 -5.80 0.000 -.5104987 -.2525297

state\_policy2 | .7762019 .03204 24.23 0.000 .7134048 .8389991

demgov2 | -.2060623 .2742304 -0.75 0.452 -.743544 .3314194

weekend2 | -.3757323 .0434691 -8.64 0.000 -.4609302 -.2905343

z\_median\_household\_income\_2018 | .5322987 .0612717 8.69 0.000 .4122083 .6523891

z\_medianage\_county\_2018 | .2199196 .1074638 2.05 0.041 .0092944 .4305448

z\_pct\_age0to17 | -.3037535 .2687804 -1.13 0.258 -.8305534 .2230464

z\_pct\_age18to64 | -.5867924 .2908109 -2.02 0.044 -1.156771 -.0168136

z\_pct\_age65to84 | -.9614265 .3417206 -2.81 0.005 -1.631187 -.2916665

z\_difflifeexp | -.0082848 .0412292 -0.20 0.841 -.0890925 .072523

z\_pop\_density | .2159131 .0374556 5.76 0.000 .1425015 .2893247

z\_supermarkets | -.1635021 .0417401 -3.92 0.000 -.2453111 -.081693

z\_supermarketsLow | .1265421 .0364358 3.47 0.001 .0551293 .197955

z\_religion | .0192766 .0461373 0.42 0.676 -.0711509 .1097041

z\_percentEmployed | .1239366 .051974 2.38 0.017 .0220694 .2258039

z\_gini | .2722906 .0439472 6.20 0.000 .1861557 .3584255

z\_avgtimetowork | .1265563 .0473809 2.67 0.008 .0336915 .2194212

z\_perc\_black | .4009431 .0702655 5.71 0.000 .2632253 .5386609

z\_perc\_asian | .5834541 .0576648 10.12 0.000 .4704332 .696475

z\_perc\_hisplatin | .1464225 .0600468 2.44 0.015 .028733 .2641121

\_cons | 1.801809 .2435045 7.40 0.000 1.324549 2.279069

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Random-effects Parameters | Estimate Std. Err. [95% Conf. Interval]

-----------------------------+------------------------------------------------

state\_fips: Identity |

var(\_cons) | 2.759591 .7510464 1.618761 4.704425

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county\_fips: Identity |

var(\_cons) | 1.066802 .0824865 .9167854 1.241365

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var(Residual) | 169.5988 .4876156 168.6458 170.5572

------------------------------------------------------------------------------

LR test vs. linear model: chi2(2) = 1050.81 Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

**Death Growth Rate 🡨 Trump + Employment Categories**

Mixed-effects ML regression Number of obs = 160,720

-------------------------------------------------------------

| No. of Observations per Group

Group Variable | Groups Minimum Average Maximum

----------------+--------------------------------------------

state\_fips | 50 82 3,214.4 9,758

county\_fips | 1,960 82 82.0 82

-------------------------------------------------------------

Wald chi2(38) = 2026.52

Log likelihood = -666549.32 Prob > chi2 = 0.0000

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deathRate | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------------------------+----------------------------------------------------------------

z\_trump | -.2901436 .0988518 -2.94 0.003 -.4838896 -.0963975

state\_policy2 | 1.132229 .0456688 24.79 0.000 1.04272 1.221738

demgov2 | -.264418 .1931911 -1.37 0.171 -.6430656 .1142296

weekend2 | -.503157 .0629624 -7.99 0.000 -.626561 -.3797531

z\_median\_household\_income\_2018 | .1584689 .0908947 1.74 0.081 -.0196814 .3366192

z\_medianage\_county\_2018 | .1112699 .1664171 0.67 0.504 -.2149017 .4374415

z\_pct\_age0to17 | -.8903412 .4726486 -1.88 0.060 -1.816715 .0360331

z\_pct\_age18to64 | -1.286062 .512517 -2.51 0.012 -2.290576 -.2815468

z\_pct\_age65to84 | -1.607011 .6167557 -2.61 0.009 -2.81583 -.3981921

z\_difflifeexp | .0216327 .0539035 0.40 0.688 -.0840163 .1272817

z\_pop\_density | .1255923 .0430854 2.91 0.004 .0411463 .2100382

z\_supermarkets | -.175414 .087966 -1.99 0.046 -.3478243 -.0030038

z\_supermarketsLow | .2572992 .0722267 3.56 0.000 .1157374 .3988609

z\_religion | .038476 .0670427 0.57 0.566 -.0929252 .1698772

z\_percentEmployed | .2282812 .0899342 2.54 0.011 .0520135 .4045489

z\_pct\_emp\_agri\_2016 | -.2185854 .0908899 -2.40 0.016 -.3967262 -.0404445

z\_pct\_emp\_mini\_2016 | .0019809 .0745157 0.03 0.979 -.1440672 .1480291

z\_pct\_emp\_util\_2016 | .053279 .0652303 0.82 0.414 -.07457 .181128

z\_pct\_emp\_cons\_2016 | .0486887 .0642916 0.76 0.449 -.0773206 .1746979

z\_pct\_emp\_manu\_2016 | .1699953 .0993259 1.71 0.087 -.0246799 .3646704

z\_pct\_emp\_whol\_2016 | .1415427 .0727451 1.95 0.052 -.0010351 .2841204

z\_pct\_emp\_reta\_2016 | -.0104067 .0715699 -0.15 0.884 -.1506811 .1298678

z\_pct\_emp\_tran\_2016 | .08985 .0536165 1.68 0.094 -.0152364 .1949364

z\_pct\_emp\_info\_2016 | .0406577 .0512955 0.79 0.428 -.0598797 .141195

z\_pct\_emp\_fina\_2016 | .1287252 .0522238 2.46 0.014 .0263685 .2310819

z\_pct\_emp\_real\_2016 | .1175321 .0559539 2.10 0.036 .0078644 .2271997

z\_pct\_emp\_prof\_2016 | .2398628 .067189 3.57 0.000 .1081748 .3715509

z\_pct\_emp\_mana\_2016 | .2862639 .0513422 5.58 0.000 .185635 .3868929

z\_pct\_emp\_admi\_2016 | .3704365 .056351 6.57 0.000 .2599906 .4808824

z\_pct\_emp\_educ\_2016 | .2040625 .0477038 4.28 0.000 .1105649 .2975602

z\_pct\_emp\_heal\_2016 | .259867 .0860205 3.02 0.003 .0912699 .4284642

z\_pct\_emp\_arts\_2016 | .0914586 .0667931 1.37 0.171 -.0394533 .2223706

z\_pct\_emp\_acco\_2016 | .0765091 .0798077 0.96 0.338 -.0799112 .2329294

z\_gini | .2129765 .0678587 3.14 0.002 .0799759 .345977

z\_avgtimetowork | .5531319 .0771985 7.17 0.000 .4018257 .7044382

z\_perc\_black | .4604443 .1036686 4.44 0.000 .2572577 .663631

z\_perc\_asian | .265763 .0635916 4.18 0.000 .1411258 .3904003

z\_perc\_hisplatin | .3162906 .0886597 3.57 0.000 .1425207 .4900605

\_cons | 1.925648 .1723451 11.17 0.000 1.587857 2.263438

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Random-effects Parameters | Estimate Std. Err. [95% Conf. Interval]

-----------------------------+------------------------------------------------

state\_fips: Identity |

var(\_cons) | 1.217484 .3728419 .6680234 2.218886

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county\_fips: Identity |

var(\_cons) | .7694859 .1186272 .5688212 1.04094

-----------------------------+------------------------------------------------

var(Residual) | 233.4572 .8286123 231.8388 235.087

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LR test vs. linear model: chi2(2) = 366.68 Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.