

REMI PI+ MODELING & IMPACT ANALYSIS

Prior Policy Analyses



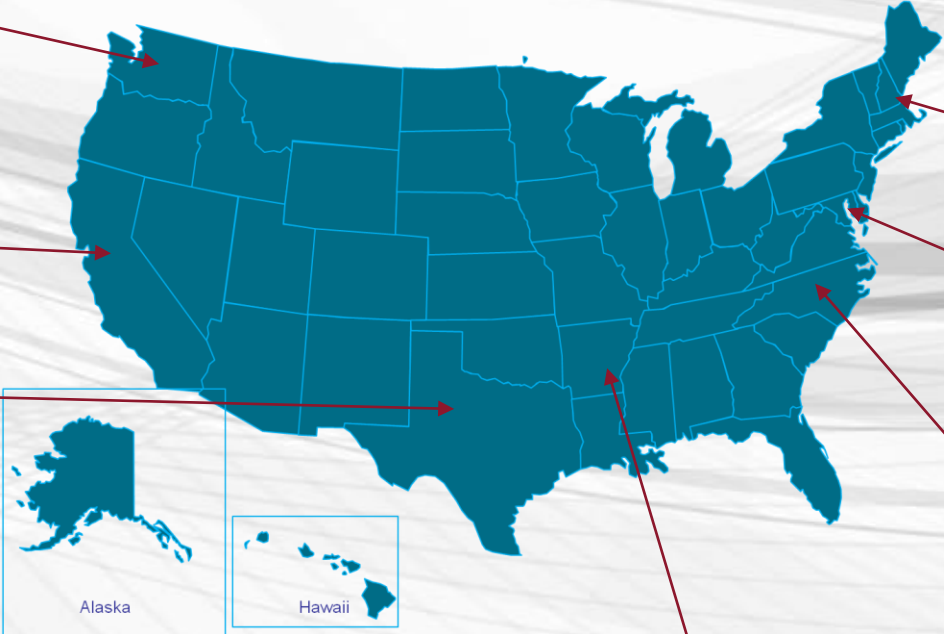
REMI's PI+ is the industry standard for dynamic regional macroeconomic and demographic analysis of public policy and economic development projects.

Washington:

Aerospace tax credit analysis

California: Impact of CalRecycle program

Texas: Statutory impact analysis requirement for appropriations legislation



New England:

Regional Greenhouse Gas Initiative

Maryland:

Corporate tax rate reduction analysis

North Carolina:

Medicaid expansion analysis

Arkansas: Big River Steel manufacturing facility analysis

Demo Simulations



- Increasing total employment
 - ▣ Tax cut (with reduction in government expenditures)
 - ▣ Direct government hiring
- Studying natural disaster impact
 - ▣ Property destruction

Raising Employment: Tax Cut vs. Hiring



Tax Cut

Active	View	Category	Detail	Region	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<input checked="" type="checkbox"/>		Production Cost	Details (66)	Suffolk County	Percent	0	0	0	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
<input checked="" type="checkbox"/>		State and Local Government Spending	Include Amenity: Details (2)	Suffolk County	Percent	0	0	0	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10

Government Hiring

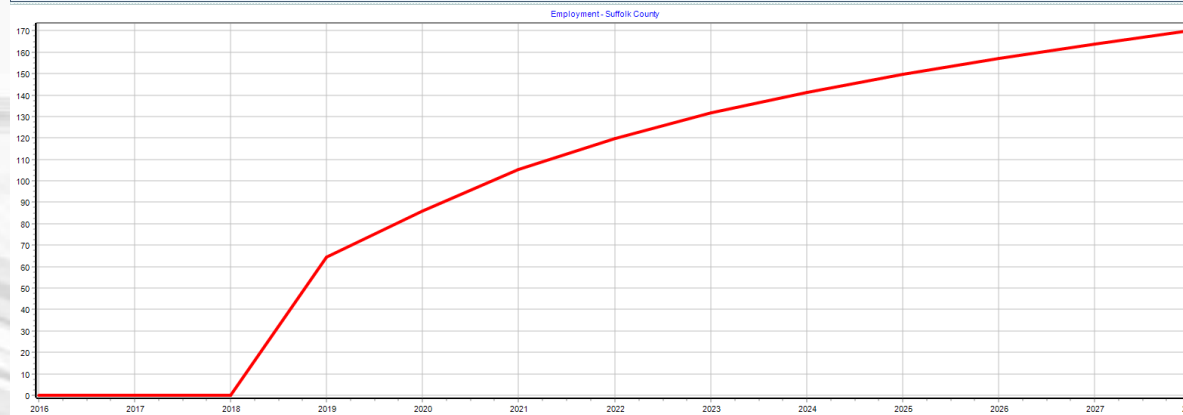
Active	View	Category	Detail	Region	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<input checked="" type="checkbox"/>		State and Local Government Employment	Details (2)	Suffolk County	Thousands	0	0	0	1	1	1	1	1	1	1	1	1	1

Raising Employment: Tax Cut vs. Hiring

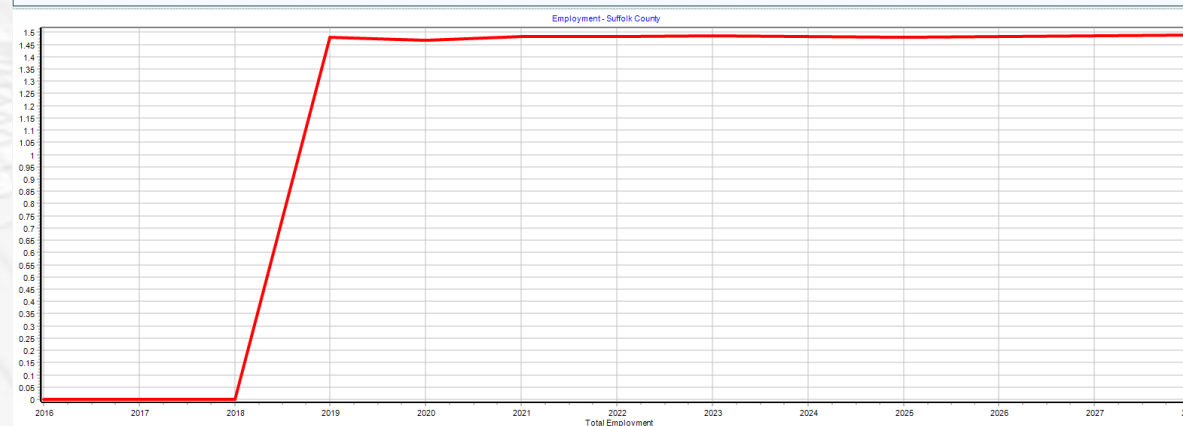


Both raise employment

Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Total Employment	Thousands (Jobs)	0.000	0.000	0.000	+64,588	+85,854	+105,381	+119,683	+131,630	+141,398	+149,550	+157,046	+163,696	+170,126



Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Total Employment	Thousands (Jobs)	0.000	0.000	0.000	+1.478	+1.467	+1.482	+1.483	+1.484	+1.483	+1.481	+1.482	+1.484	+1.489



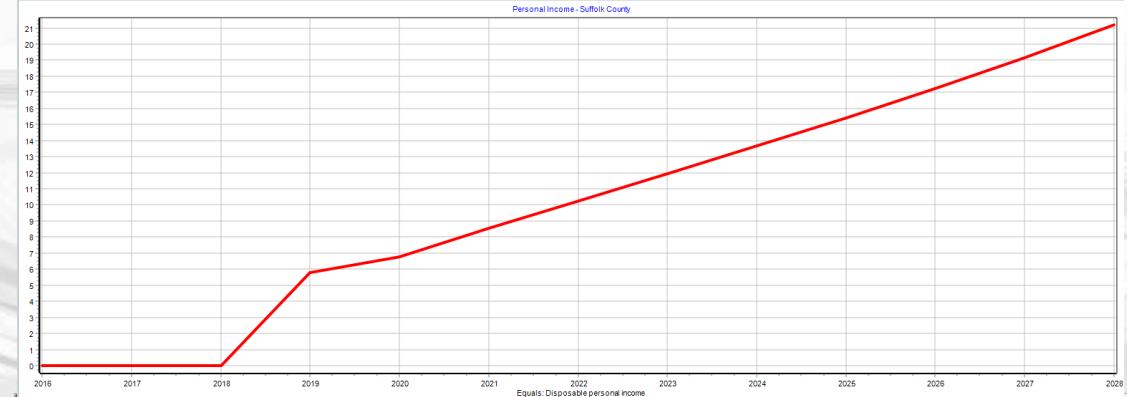
what does REMI say? sm

Raising Employment: Tax Cut vs. Hiring

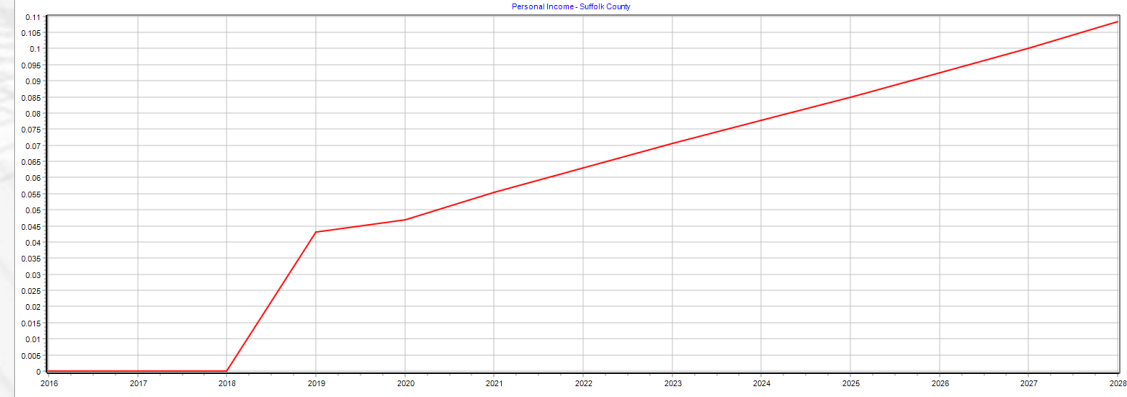


Raises personal income

Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Equals: Net Earnings by Place of Reside	Billions of Current Dollars	0.000	0.000	0.000	+6.934	+7.696	+9.391	+10.839	+12.469	+14.945	+15.999	+17.214	+18.898	+20.678
Plus: Property Income	Billions of Current Dollars	0.000	0.000	0.000	+0.242	+0.459	+0.699	+0.949	+1.207	+1.470	+1.733	+2.009	+2.303	+2.612
Personal Dividend Income	Billions of Current Dollars	0.000	0.000	0.000	+0.080	+0.149	+0.221	+0.293	+0.364	+0.439	+0.515	+0.597	+0.685	+0.778
Personal Interest Income	Billions of Current Dollars	0.000	0.000	0.000	+0.108	+0.212	+0.336	+0.472	+0.617	+0.764	+0.911	+1.063	+1.224	+1.395
Rental Income of Persons	Billions of Current Dollars	0.000	0.000	0.000	+0.053	+0.097	+0.142	+0.185	+0.226	+0.267	+0.307	+0.349	+0.393	+0.438
Plus: Personal Current Transfer Receipts	Billions of Current Dollars	0.000	0.000	0.000	-0.051	+0.125	+0.326	+0.567	+0.824	+1.101	+1.411	+1.739	+2.085	+2.462
Equals: Personal Income	Billions of Current Dollars	0.000	0.000	0.000	+7.125	+8.281	+10.416	+12.455	+14.520	+16.616	+18.744	+20.963	+23.285	+25.752
Less: Personal current taxes	Billions of Current Dollars	0.000	0.000	0.000	+1.318	+1.509	+1.880	+2.226	+2.579	+2.940	+3.314	+3.705	+4.114	+4.550
Equals: Disposable personal income	Billions of Current Dollars	0.000	0.000	0.000	+5.807	+6.772	+8.536	+10.229	+11.942	+13.676	+15.430	+17.257	+19.171	+21.202



Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Equals: Net Earnings by Place of Reside	Billions of Current Dollars	0.000	0.000	0.000	+0.051	+0.052	+0.059	+0.065	+0.071	+0.076	+0.082	+0.087	+0.093	+0.100
Plus: Property Income	Billions of Current Dollars	0.000	0.000	0.000	+0.002	+0.004	+0.006	+0.007	+0.009	+0.010	+0.012	+0.013	+0.014	+0.016
Personal Dividend Income	Billions of Current Dollars	0.000	0.000	0.000	+0.001	+0.001	+0.002	+0.002	+0.003	+0.003	+0.003	+0.004	+0.004	+0.005
Personal Interest Income	Billions of Current Dollars	0.000	0.000	0.000	+0.001	+0.002	+0.003	+0.004	+0.005	+0.005	+0.006	+0.007	+0.008	+0.008
Rental Income of Persons	Billions of Current Dollars	0.000	0.000	0.000	+0.001	+0.001	+0.001	+0.001	+0.002	+0.002	+0.002	+0.002	+0.002	+0.003
Plus: Personal Current Transfer Receipts	Billions of Current Dollars	0.000	0.000	0.000	+0.001	+0.003	+0.004	+0.006	+0.006	+0.008	+0.010	+0.011	+0.013	+0.015
Equals: Personal Income	Billions of Current Dollars	0.000	0.000	0.000	+0.053	+0.057	+0.067	+0.077	+0.086	+0.094	+0.103	+0.112	+0.121	+0.131
Less: Personal current taxes	Billions of Current Dollars	0.000	0.000	0.000	+0.010	+0.010	+0.012	+0.014	+0.015	+0.016	+0.018	+0.019	+0.021	+0.023
Equals: Disposable personal income	Billions of Current Dollars	0.000	0.000	0.000	+0.043	+0.047	+0.055	+0.063	+0.071	+0.078	+0.085	+0.092	+0.100	+0.108

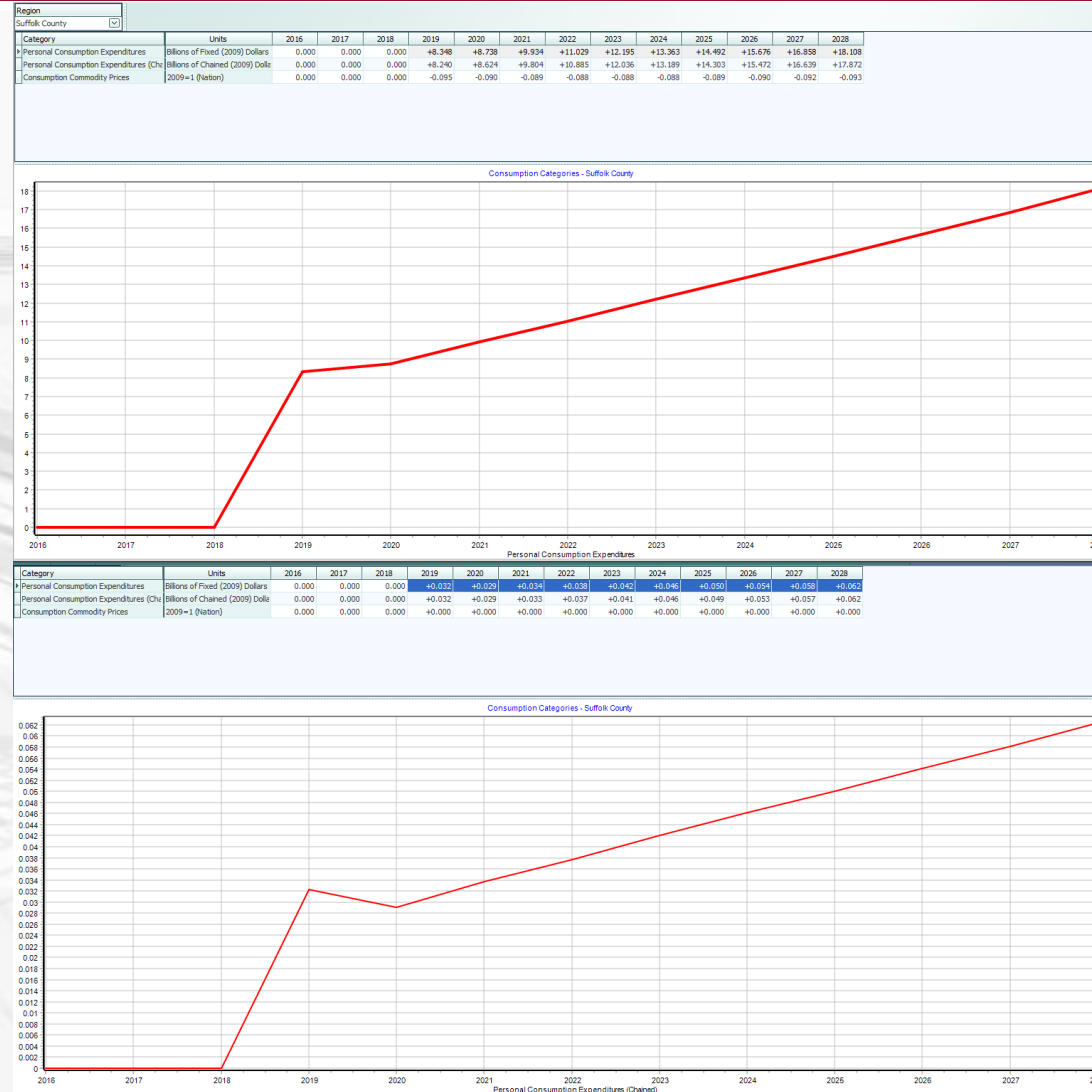


what does REMI say? sm

Raising Employment: Tax Cut vs. Hiring



Raises consumption



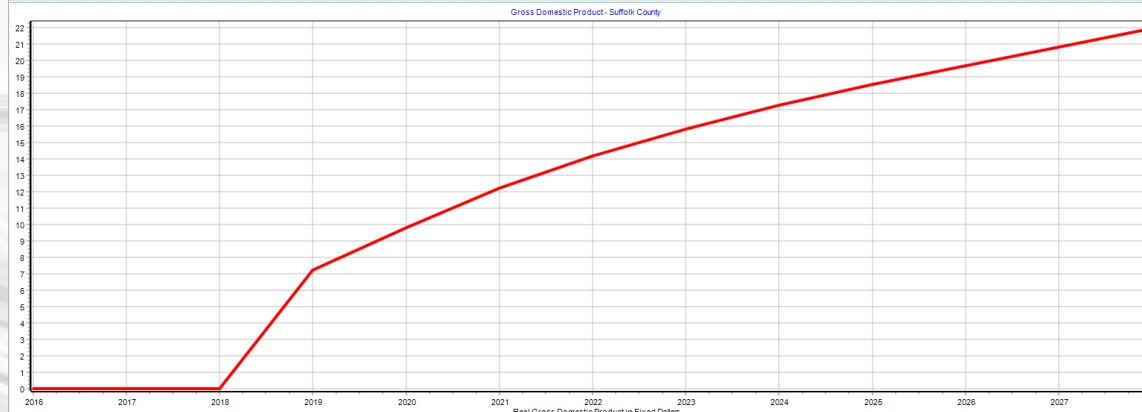
what does REMI say? sm

Raising Employment: Tax Cut vs. Hiring

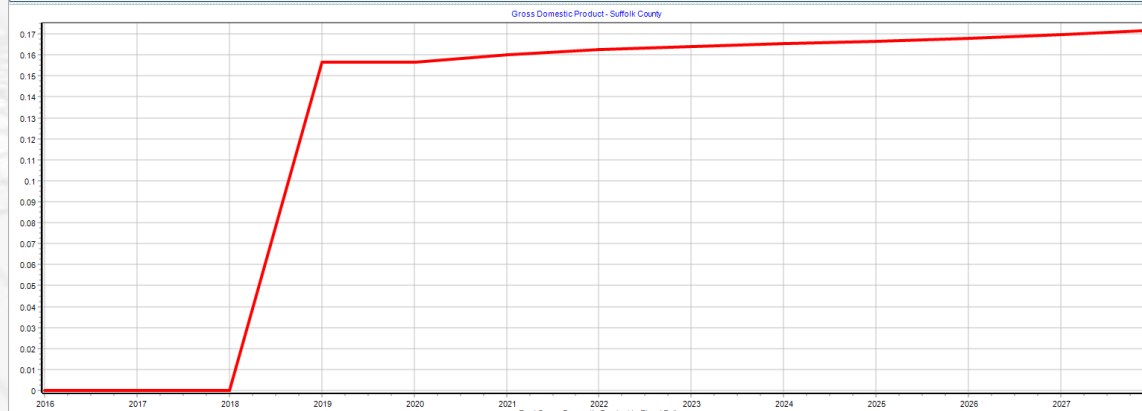


Raises GDP

Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Real Gross Domestic Product in Fixed Dollars	Billions of Fixed (2009) Dollars	0.000	0.000	0.000	+7.220	+9.821	+12.249	+14.182	+15.839	+17.282	+18.538	+19.716	+20.831	+21.969
Real Gross Domestic Product in Chained Dollars	Billions of Chained (2009) Dollars	0.000	0.000	0.000	+7.122	+9.689	+12.084	+13.990	+15.625	+17.049	+18.288	+19.450	+20.549	+21.672
Real Gross Value Added in Fixed Dollars	Billions of Fixed (2009) Dollars	0.000	0.000	0.000	+7.220	+9.821	+12.249	+14.182	+15.839	+17.282	+18.538	+19.716	+20.831	+21.969



Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Real Gross Domestic Product in Fixed Dollars	Billions of Fixed (2009) Dollars	0.000	0.000	0.000	+0.156	+0.157	+0.160	+0.163	+0.164	+0.165	+0.167	+0.168	+0.170	+0.172
Real Gross Domestic Product in Chained Dollars	Billions of Chained (2009) Dollars	0.000	0.000	0.000	+0.154	+0.154	+0.158	+0.160	+0.162	+0.163	+0.164	+0.166	+0.167	+0.169
Real Gross Value Added in Fixed Dollars	Billions of Fixed (2009) Dollars	0.000	0.000	0.000	+0.156	+0.157	+0.160	+0.163	+0.164	+0.165	+0.167	+0.168	+0.170	+0.172



what does REMI say? sm

Natural Disaster Impact



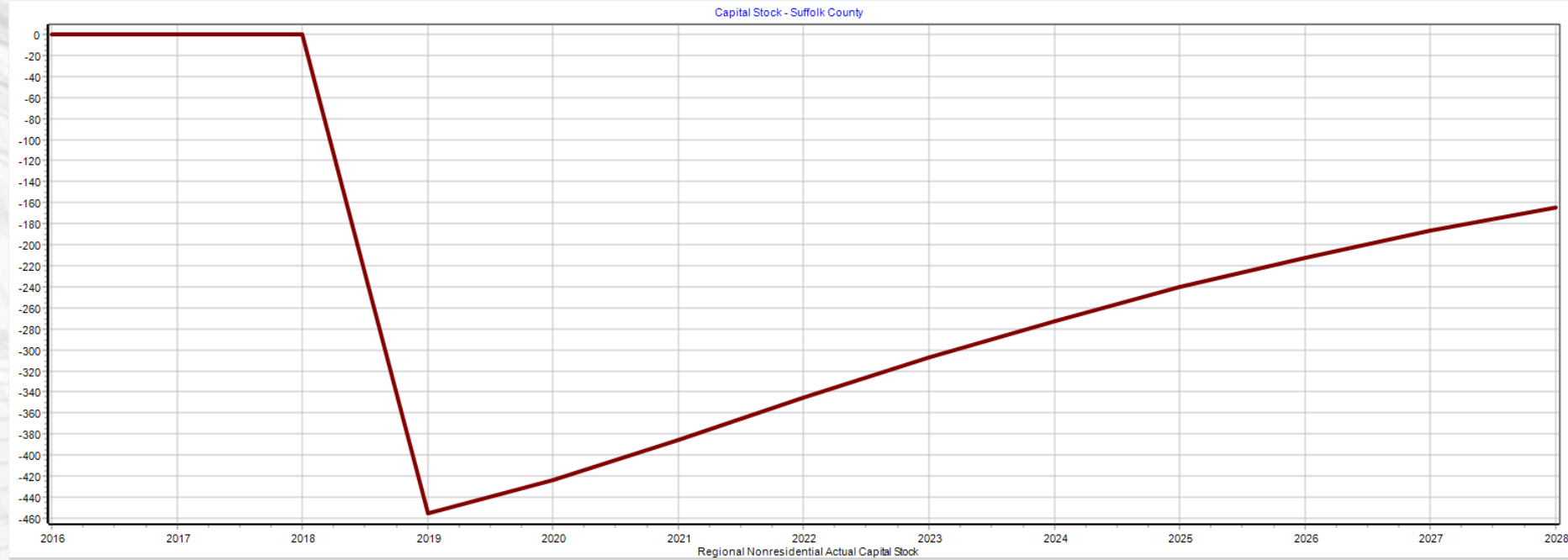
		Natural Disaster																
Active	View	Category	Detail	Region	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<input checked="" type="checkbox"/>		Capital Stock	Actual Capital Stock: Details (2)	Suffolk County	2016 Fixed Local \$ (B)	0	0	0	-1	0	0	0	0	0	0	0	0	0

Natural Disaster Impact



Actual Capital Stock

Region		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Suffolk County														
Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
National Residential Actual Capital Stock	Millions of Fixed (2018) Dollars	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
National Residential Optimal Capital Stock	Millions of Fixed (2018) Dollars	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Residential Depreciation Rate	Rate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Regional Residential Actual Capital Stock	Millions of Fixed (2018) Dollars	0.000	0.000	0.000	-505.300	-438.226	-351.425	-265.077	-189.247	-127.770	-80.884	-46.959	-23.635	-8.464
Regional Residential Optimal Capital Stock	Millions of Fixed (2018) Dollars	0.000	0.000	0.000	0.000	+14.747	+22.610	+23.886	+22.694	+20.028	+16.861	+13.927	+11.361	+9.240
Regional Residential Preference Coefficient	Coefficient	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
National Nonresidential Actual Capital Stock	Millions of Fixed (2018) Dollars	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
National Nonresidential Optimal Capital Stock	Millions of Fixed (2018) Dollars	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nonresidential Depreciation Rate	Rate	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000



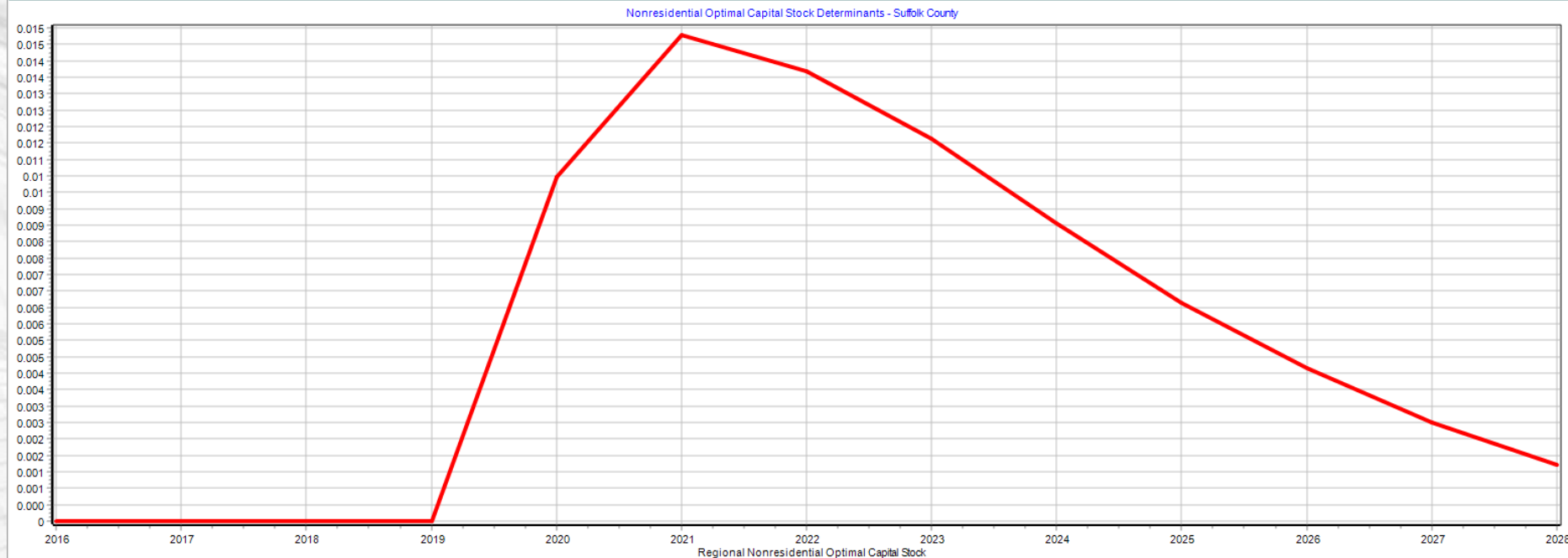
what does REMI say? sm

Natural Disaster Impact



Optimal
Capital Stock

Region		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Suffolk County														
Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Regional Nonresidential Optimal Capital S	Millions of Fixed (2018) Dollars	0.00%	0.00%	0.00%	0.00%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%	+0.00%	+0.00%	+0.00%
Total Employment	Individuals (Jobs)	0.00%	0.00%	0.00%	0.00%	+0.02%	+0.03%	+0.03%	+0.03%	+0.03%	+0.02%	+0.01%	+0.01%	+0.01%
Relative Composite Labor Costs	Proportion	0.00%	0.00%	0.00%	0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%
Relative Capital Costs	Proportion	0.00%	0.00%	0.00%	0.00%	+0.00%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%



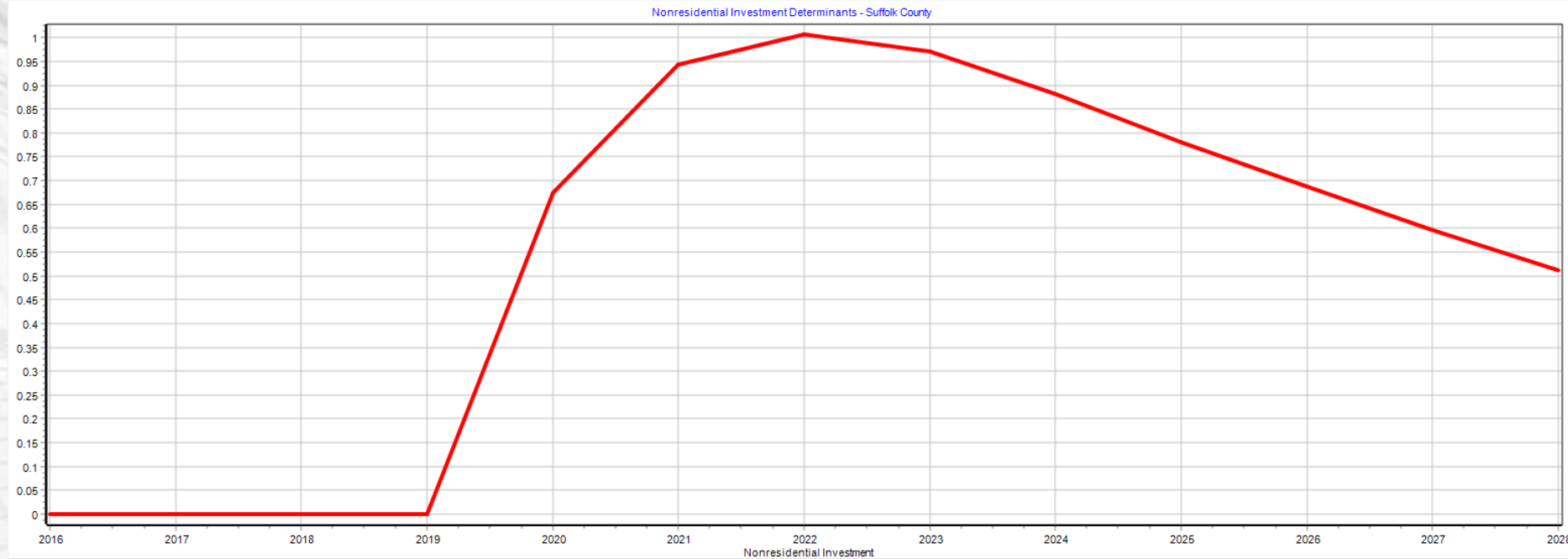
what does REMI say? sm

Natural Disaster Impact



Investment

Region		Suffolk County													
Category	Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
Nonresidential Investment	Millions of Chained (2009) Dollars	0.00%	0.00%	0.00%	0.00%	+0.67%	+0.94%	+1.01%	+0.97%	+0.88%	+0.78%	+0.69%	+0.60%	+0.51%	
Regional Nonresidential Actual Capital St	Millions of Fixed (2018) Dollars	0.00%	0.00%	0.00%	-0.54%	-0.50%	-0.45%	-0.41%	-0.36%	-0.32%	-0.28%	-0.24%	-0.21%	-0.19%	
Regional Nonresidential Optimal Capital S	Millions of Fixed (2018) Dollars	0.00%	0.00%	0.00%	0.00%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%	+0.00%	+0.00%	+0.00%	

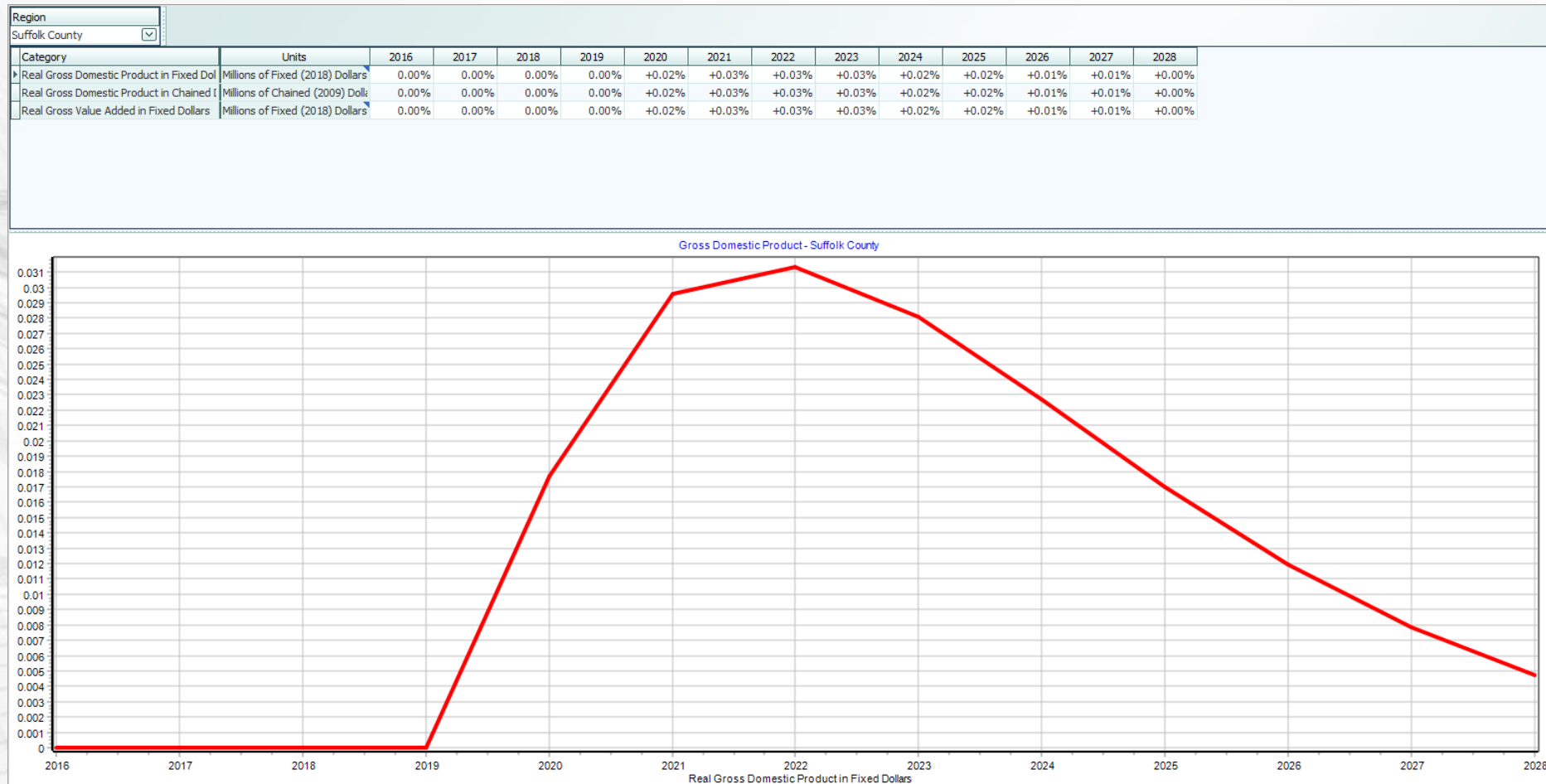


what does REMI say? sm

Natural Disaster Impact



GDP



what does REMI say? sm

Natural Disaster Impact



Employment



what does **REMI** say? *sm*

Impact Analysis as a REMI User



- Can analyze impact of both economic and non-economic events
- Can compare multiple methods of reaching economic goal