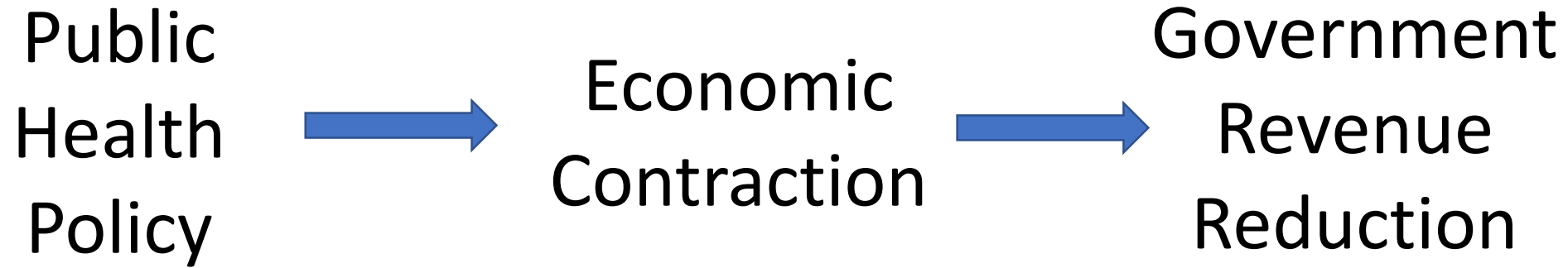


Some Perspectives on Coronavirus, Regional Economy, and Restart



Paul Coomes, Ph.D.
Consulting Economist, and
Emeritus Professor of Economics
University of Louisville

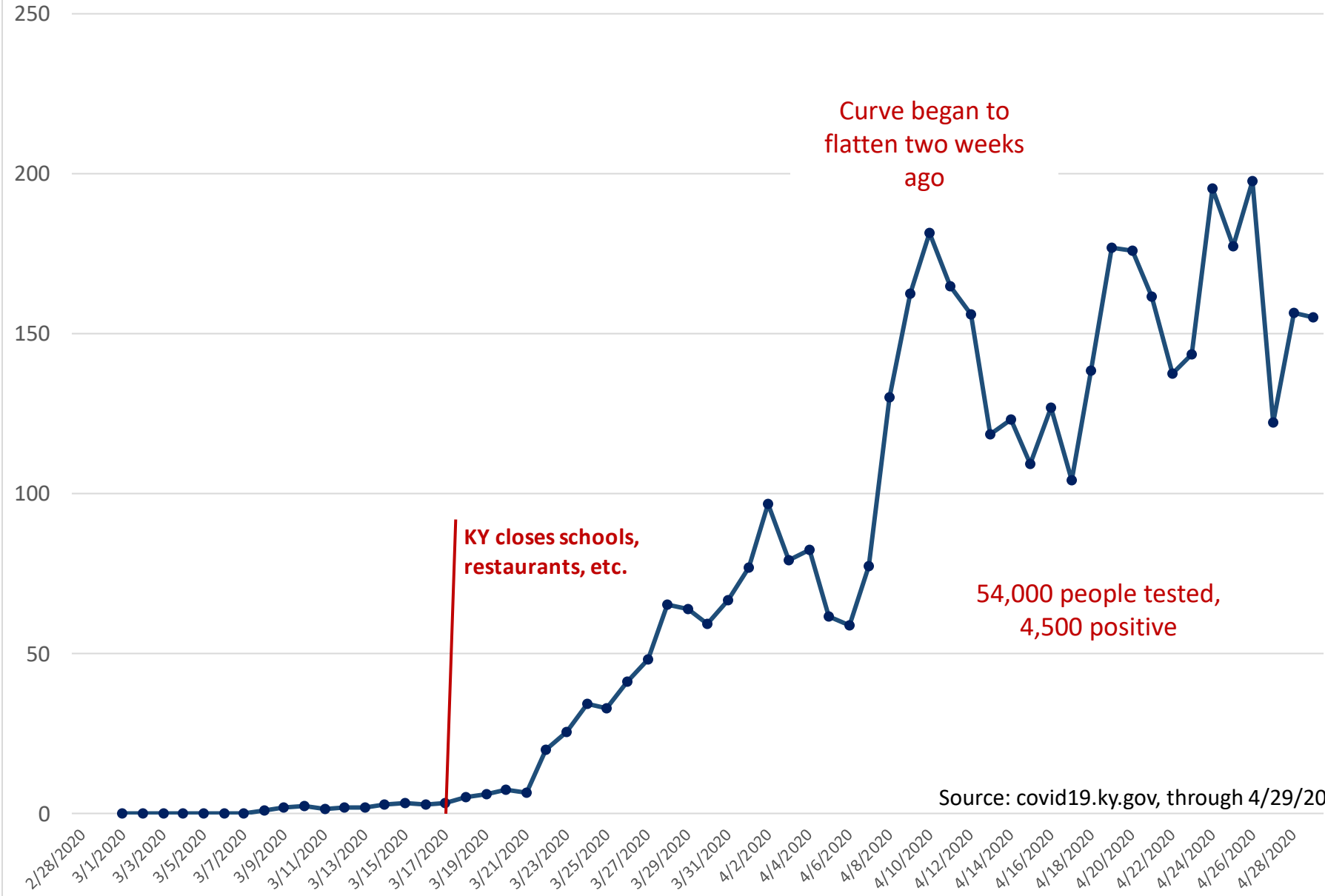
April 30, 2020



What we know 6+ weeks into business closures and ‘stay at home’ orders:

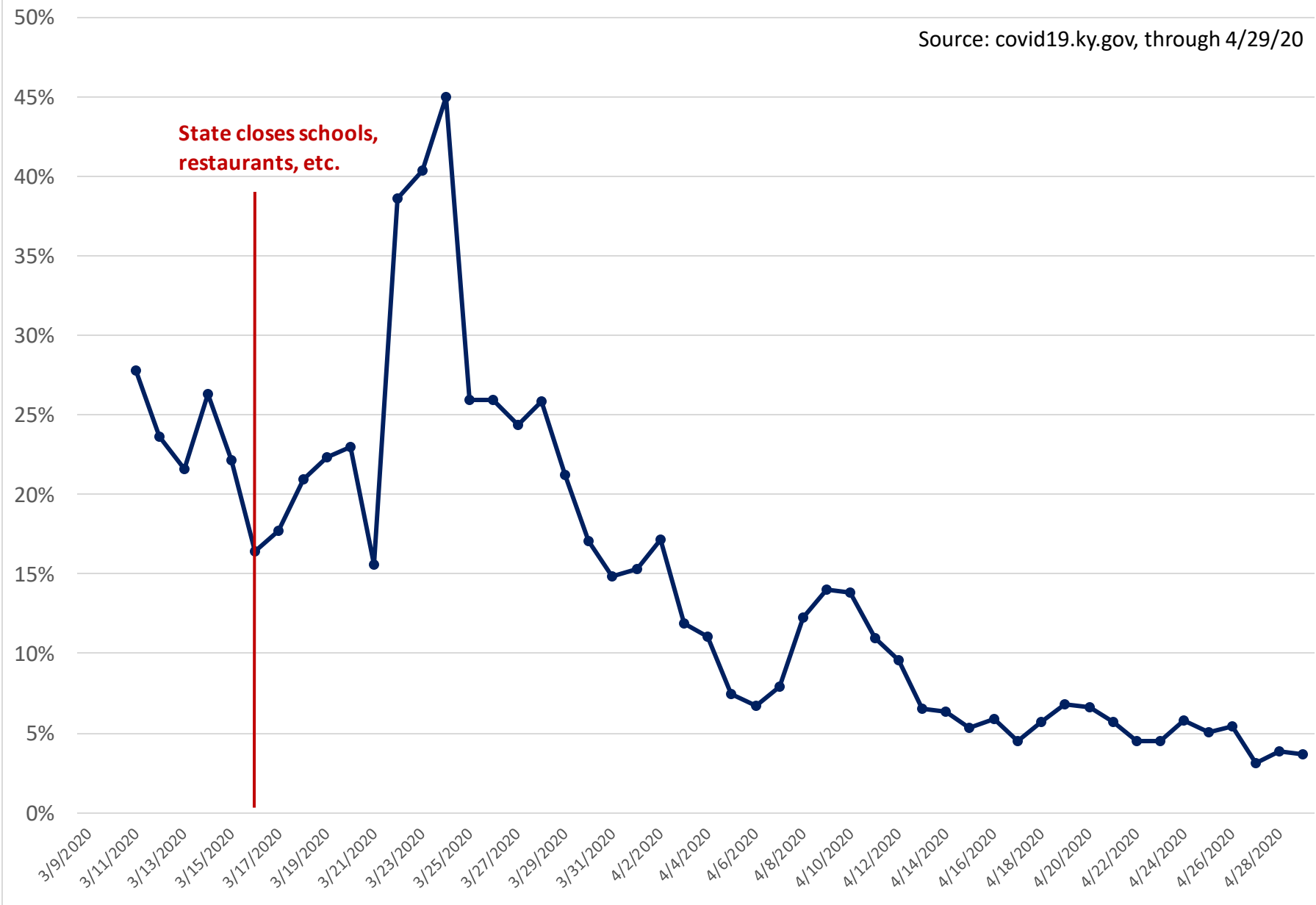
- Social distancing has worked: far fewer cases and deaths than forecast; no surge on local hospitals.
- Kentucky has had about 235 Covid deaths (typical month has 3,840 total deaths statewide); on April 1, Governor said even with social distancing we should expect 1,300 to 3,200 deaths.
- While infection is widespread, deaths are concentrated in elderly ill patients; nursing home patients are especially vulnerable.
- Curve has flattened; newly diagnosed cases peaked a week ago, despite increased testing; growth rate in cases has been declining for a month.
- Extreme policy is leading to large economic and fiscal problems.
- As a society, we are borrowing money to pay people not to work: not sustainable.

Daily New Diagnosed Cases, 3-day moving average, Kentucky



Daily Growth Rate in Diagnosed Cases, Kentucky, 3-day moving average

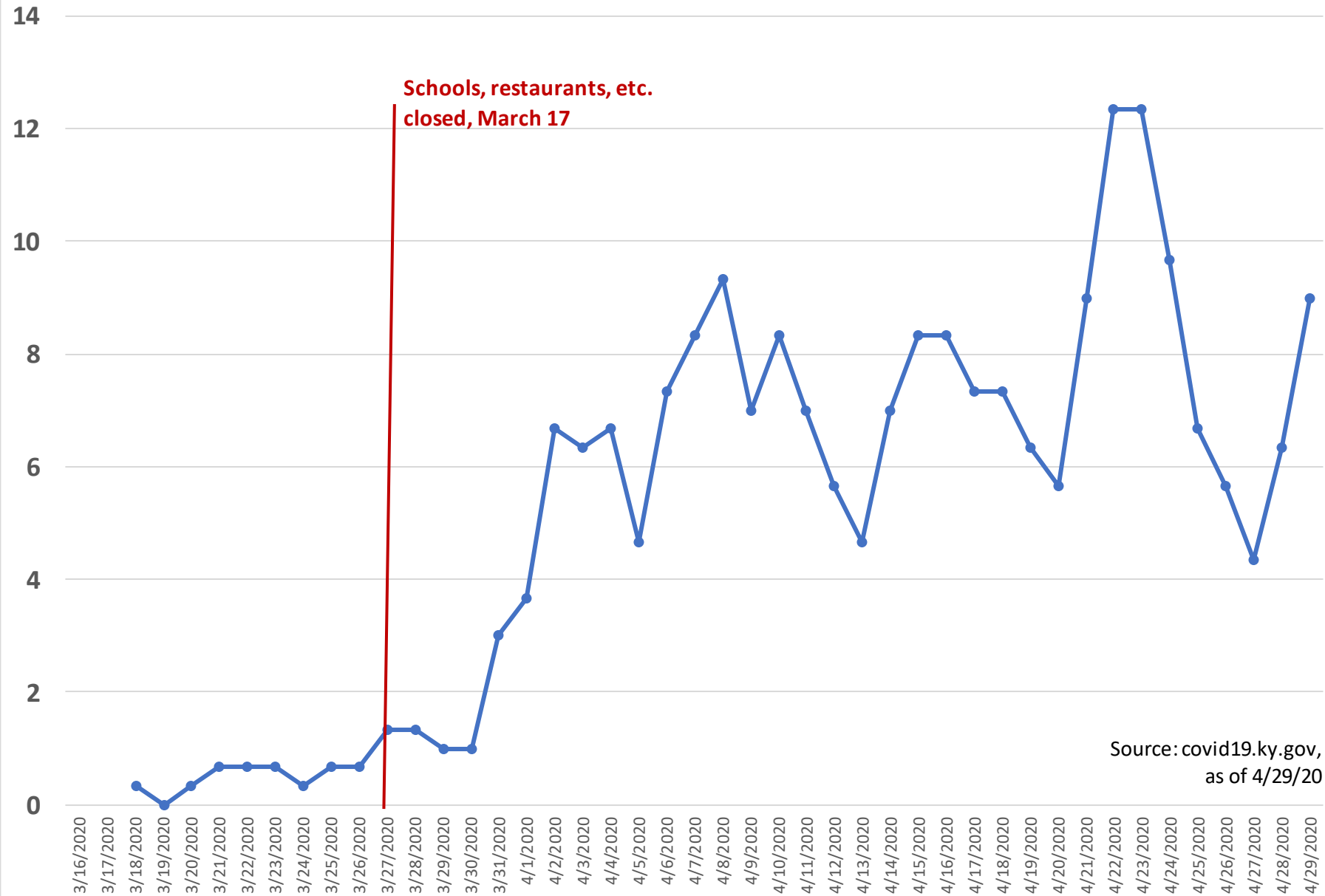
Source: covid19.ky.gov, through 4/29/20



Covid-related Deaths per Day in Kentucky, 3-day moving average

235 total
Covid-related
deaths in six
weeks.

In the typical
month,
Kentucky has
3,840 deaths,
or 125 per day,
from all causes.



Source: covid19.ky.gov,
as of 4/29/20

Some Demographic Perspective

Jefferson County has 1,280 'cases' so far,
90 deaths, 38% of state total.

Jefferson County averages 645 deaths per
month, from all causes.

Statewide, 75% of deaths are to people aged
70 or older; another 16% are in their 60s.

County has 175,000
residents aged 60 or
older

County has 82,000
residents aged 70 or
older

Jefferson County KY Population by Age, 2018					
	Both Sexes	Share of Total		Female	Male
Under 5 years	48,326	6.3%		23,534	24,792
5 to 9 years	46,872	6.1%		22,917	23,955
10 to 14 years	47,334	6.1%		23,172	24,162
15 to 19 years	46,268	6.0%		22,745	23,523
20 to 24 years	47,959	6.2%		23,877	24,082
25 to 29 years	60,494	7.9%		30,643	29,851
30 to 34 years	53,784	7.0%		26,789	26,995
35 to 39 years	51,052	6.6%		25,802	25,250
40 to 44 years	45,398	5.9%		23,236	22,162
45 to 49 years	47,345	6.1%		24,471	22,874
50 to 54 years	47,592	6.2%		24,567	23,025
55 to 59 years	53,221	6.9%		27,925	25,296
60 to 64 years	50,369	6.5%		26,862	23,507
65 to 69 years	42,210	5.5%		22,934	19,276
70 to 74 years	30,963	4.0%		16,925	14,038
75 to 79 years	21,001	2.7%		12,195	8,806
80 to 84 years	14,396	1.9%		8,782	5,614
85 years and over	15,933	2.1%		10,714	5,219
Total	770,517	100.0%		398,090	372,427

Source: US Census Bureau

Regional Economic Consequences of Public Health Policies

1. Shut-down of much of retail, restaurants, travel, conventions, sports events, personal services caused unprecedented spike in unemployment insurance claims the last six weeks.
2. Some major manufacturers have paused, leading to negative ripple through supply chains.
3. Ironically, hospitals are furloughing employees due to postponement of elective surgeries, reduction in car accidents, etc. Hospitals have had few Covid cases so far.
4. Doctor's offices, outpatient surgery centers, dentists all pushed back appointments, contracting office hours and staff.
5. Grocery stores, including big box general retailers that also sell groceries, have seen a big increase in sales, and are trying to hire more workers.
6. Trucking and delivery businesses are busy; many are hiring.
7. Coomes guesstimate: so far, public health policies have reduced employment in Jefferson County by 158,000 jobs, or 26% of total. Assuming two months of shutdown, employment compensation will be down \$1.0 billion.

Guesstimate of Shutdown Effects

Break economy down into 500 industries. Assign a likely employment reduction to each, including those in the supply chain of directly impacted industries, like restaurants and hotels. Aggregate up to major industry divisions.

This is about 26 percent of all employment, and 18 percent of employee compensation for two months.

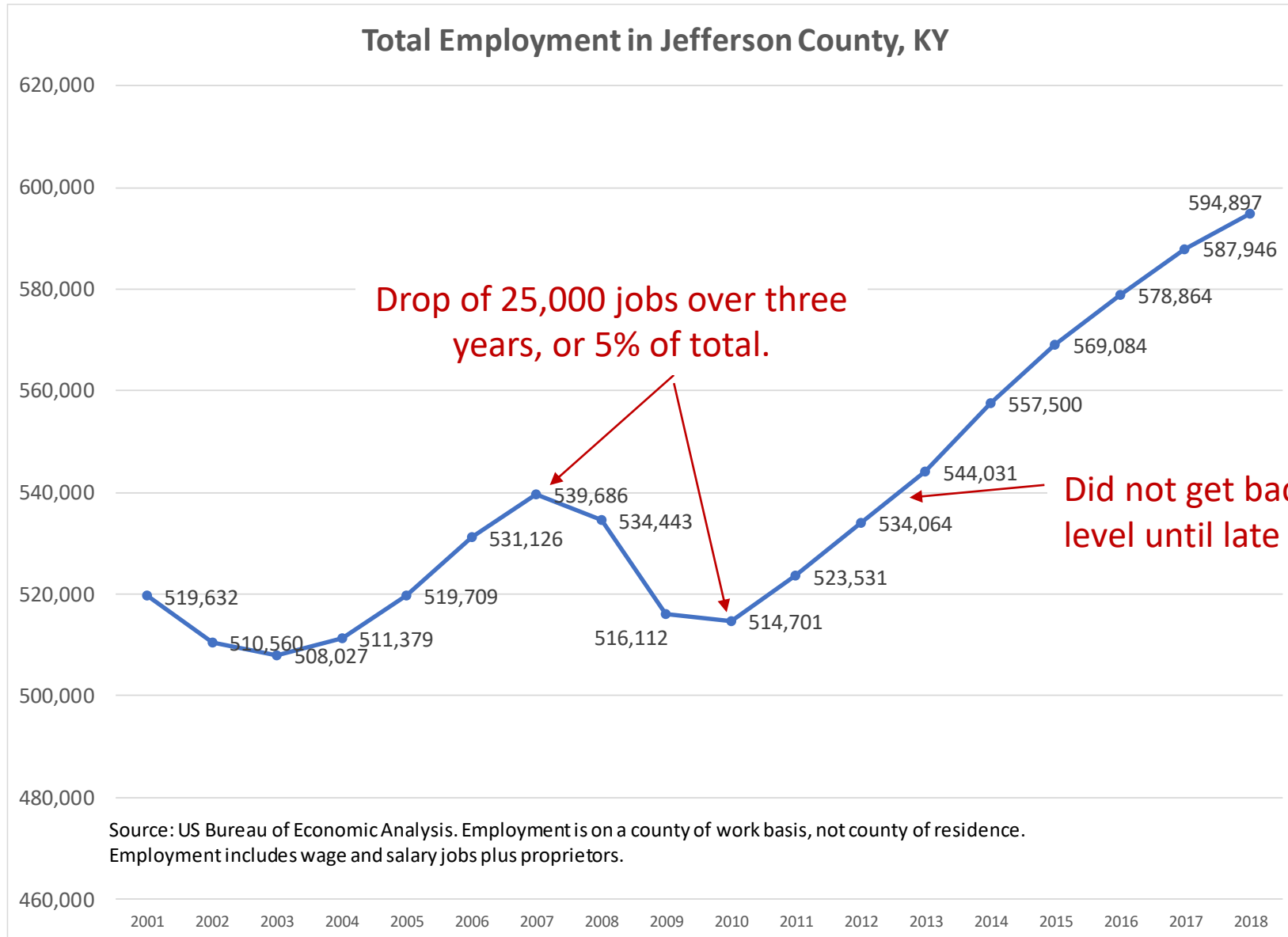
Employment impact is much larger than compensation impact, due to prevalence of part-time and low-pay jobs in most affected industries.

For example, average annual compensation in food services is \$22,000; retail trade is \$32,000; all industry average is \$57,000.

Guesstimate of Economic Losses by Major Industry in Jefferson County, Two Months		
	Employment	Employee Compensation
Personal Services, Member Organizations	31,160	\$207,911,921
Food Service	30,325	\$114,651,616
Admin & support and waste mgmt and remediation svc	24,020	\$136,679,754
Retail Trade	16,367	\$84,468,410
Health Care, Social Svc	16,364	\$165,532,665
Arts, Entertainment, Recreation	8,978	\$33,818,905
Transportation	5,843	\$43,812,893
Manufacturing	4,976	\$74,540,937
Real Estate, Rental and Leasing	4,786	\$21,444,752
Accomodations	4,170	\$24,140,268
Professional, Technical, Scientific Svc	4,061	\$34,589,418
Wholesale Trade	1,977	\$26,460,922
Government, other	1,756	\$24,161,035
Finance, Insurance, Real Estate	1,425	\$14,107,638
Management of Companies and Enterprises	902	\$18,187,681
Educational Services	811	\$2,621,626
Information	241	\$2,902,045
Agriculture and Forestry	0	\$0
Mining	0	\$0
Utilities	0	\$0
Construction	0	\$0
Total	158,162	\$1,030,032,487

A Look Back at 2007-2009 Recession

Technically, economy peaked in December 2007, and hit bottom in June 2009. Labor market lagged GDP.



A Look Back at 2007-2009 Recession

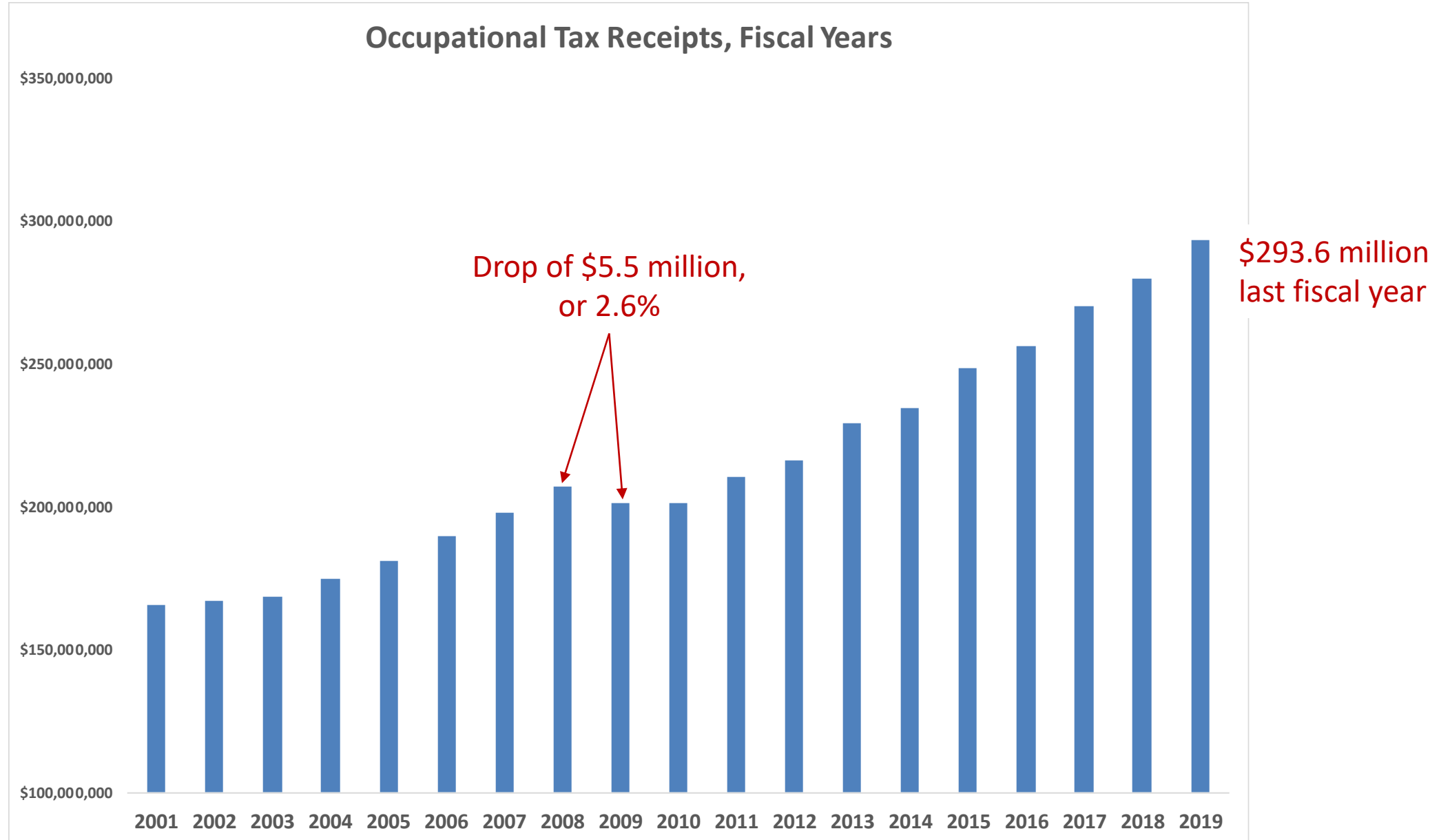
Change in Employment, 2007 to 2010, by Major Industry, Jefferson County				
Manufacturing	-6,956	Manufacturing, construction pulled economy down.	Health care and social assistance	3,725
Construction	-5,572		Educational services	664
Admin and support and waste mgmt and remediation svc	-3,996		State government	607
Transportation and warehousing	-3,957		Real estate and rental and leasing	443
Retail trade	-3,588		Federal civilian	433
Other services	-2,338		Finance and insurance	158
Wholesale trade	-2,000		Military	146
Information	-1,055		Mining, quarrying, and oil and gas extraction	117
Professional, scientific, and technical services	-557			
Arts, entertainment, and recreation	-350			
Local government	-346			
Accommodation and food services	-290			
Management of companies and enterprises	-109			
Declining industries	-31,114		Expanding industries	6,293
Source: US Bureau of Economic Analysis. Employment includes wage and salary jobs, plus proprietors. Author's estimate for wholesale trade, as those data were not disclosed.				

Health care and government added jobs.

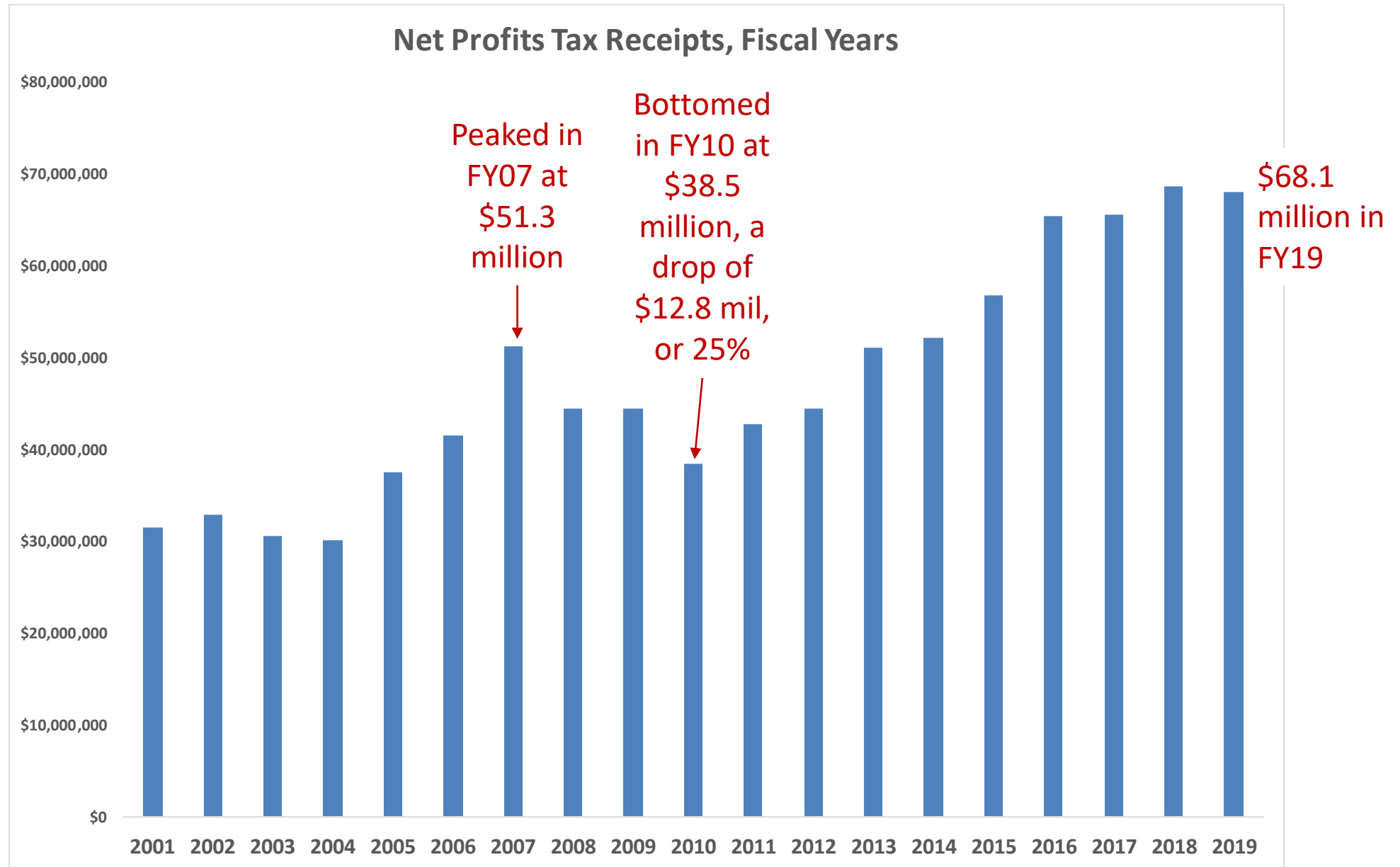
A Look Back at 2007-2009 Recession



A Look Back at 2007-2009 Recession



A Look Back at 2007-2009 Recession



So, if we have a similar national recession, Metro Government revenues will likely be down for two years.

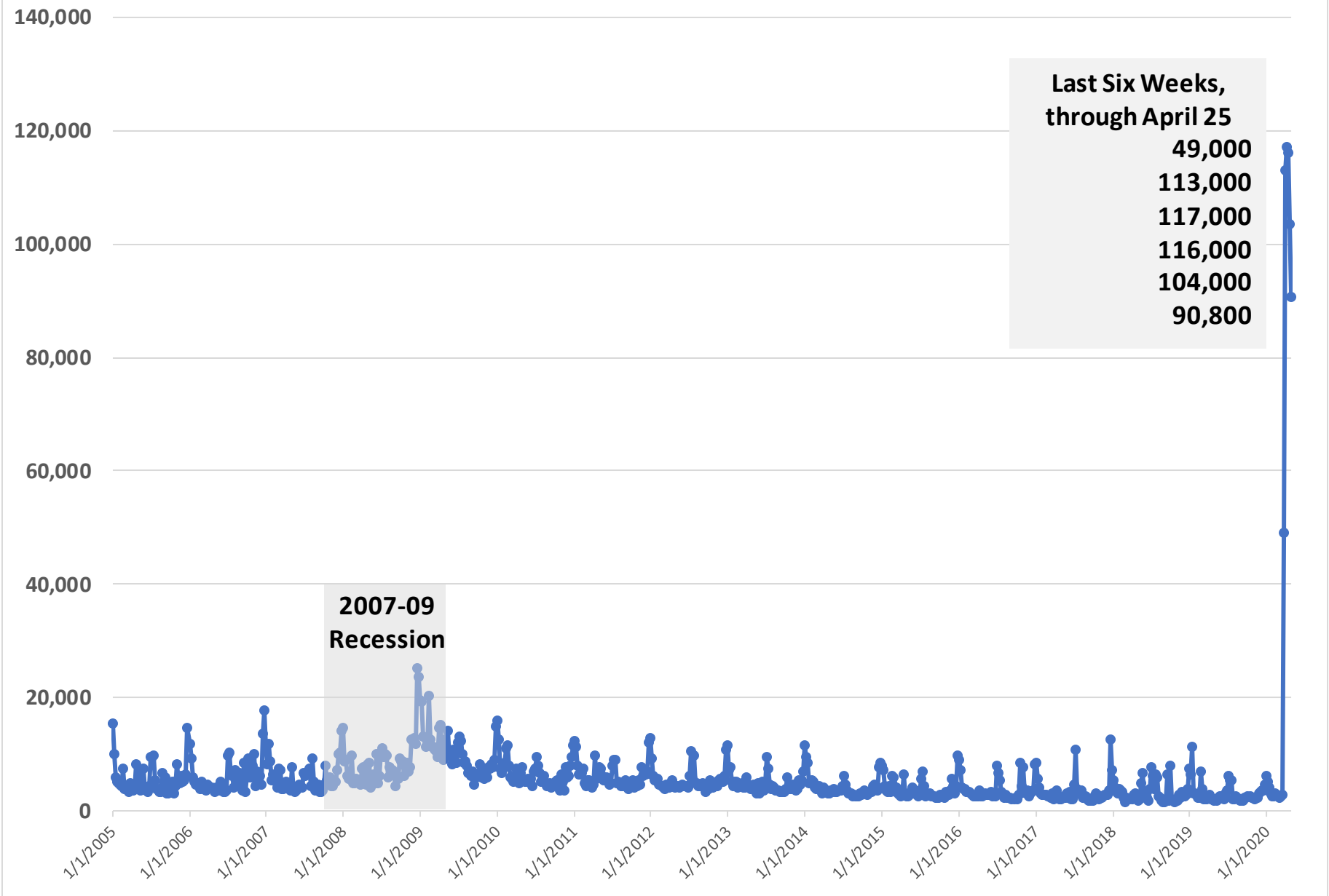
CARES Act Impacts in Jefferson County

1. Unemployment Insurance: Public policy is to pay people not to work. Kentucky employers and employees responded at one of the highest rates in the US. Probably 20% of employees filed over last month. **INFLOW of federal dollars: \$720 million over three months to workers in Jefferson County (plus regular state UI payments of \$420 million).**
2. Paycheck Protection Program: First wave was \$350 billion, second wave \$310 billion. Jefferson County accounts for 0.31% of US wages. Assuming this rate for both rounds, the **INFLOW of federal dollars to County would be \$2 billion over two months.** But, of course, much of that will need to be repaid.
3. Household Stimulus Payments: IRS is making \$301 billion payments to households, starting at \$1,200 for singles, up to \$3,400 for married couple with two or more kids. **INFLOW of federal dollars: \$746 million to Jefferson County residents over two months.**

Potential federal inflows to Jefferson County: **\$3.5 billion**

Compare to two months of employee compensation in Jefferson County of \$5.7 billion, of which we have already probably lost **\$1.0 billion** due to the shutdown.

Initial Weekly Claims for Unemployment Insurance, Kentucky



CORONAVIRUS

Free Resources

• **LIVE UPDATES**

SYMPTOMS

WHO'S HIRING

YOU ASK, WE ANSWER

STATE LOCKDOWNS

DAILY LIFE

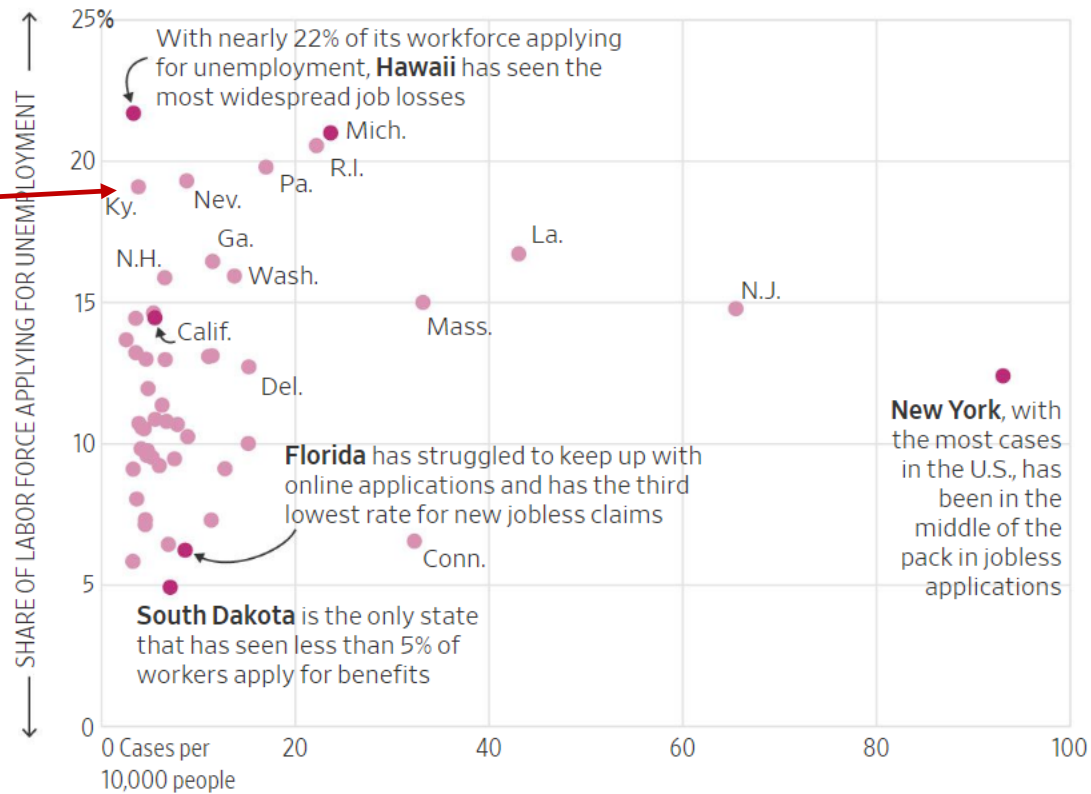
TESTING AND TREATMENT

▶ DAILY VIDEO BRIEFING

EN ESPAÑOL

Kentucky: few
Covid cases,
extremely high
unemployment
claims.

Jobless claims and case load, by state

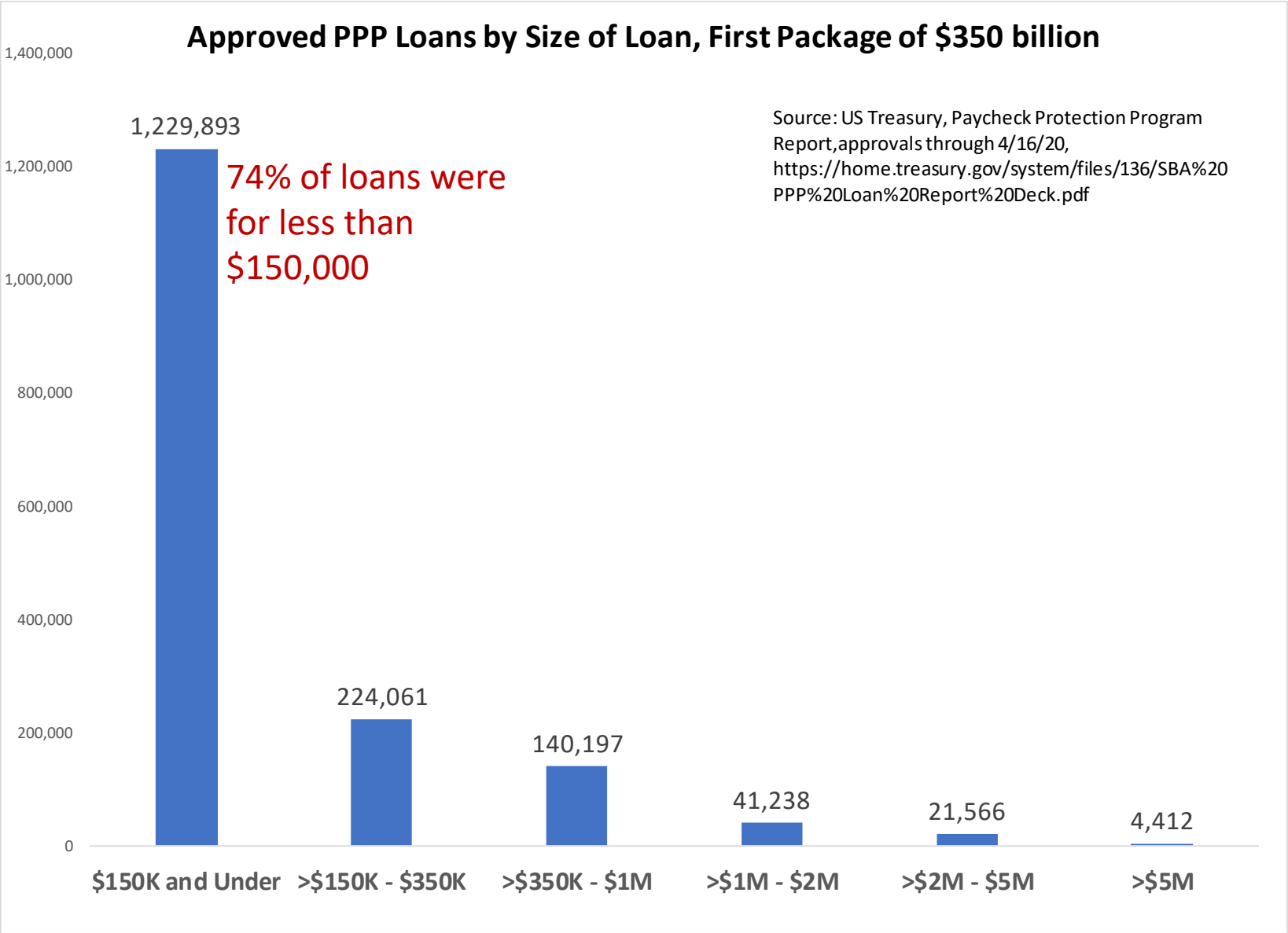


Note: Labor size is from February. Population is estimate for June 2019. Jobless applications and

Unemployment Insurance Claims

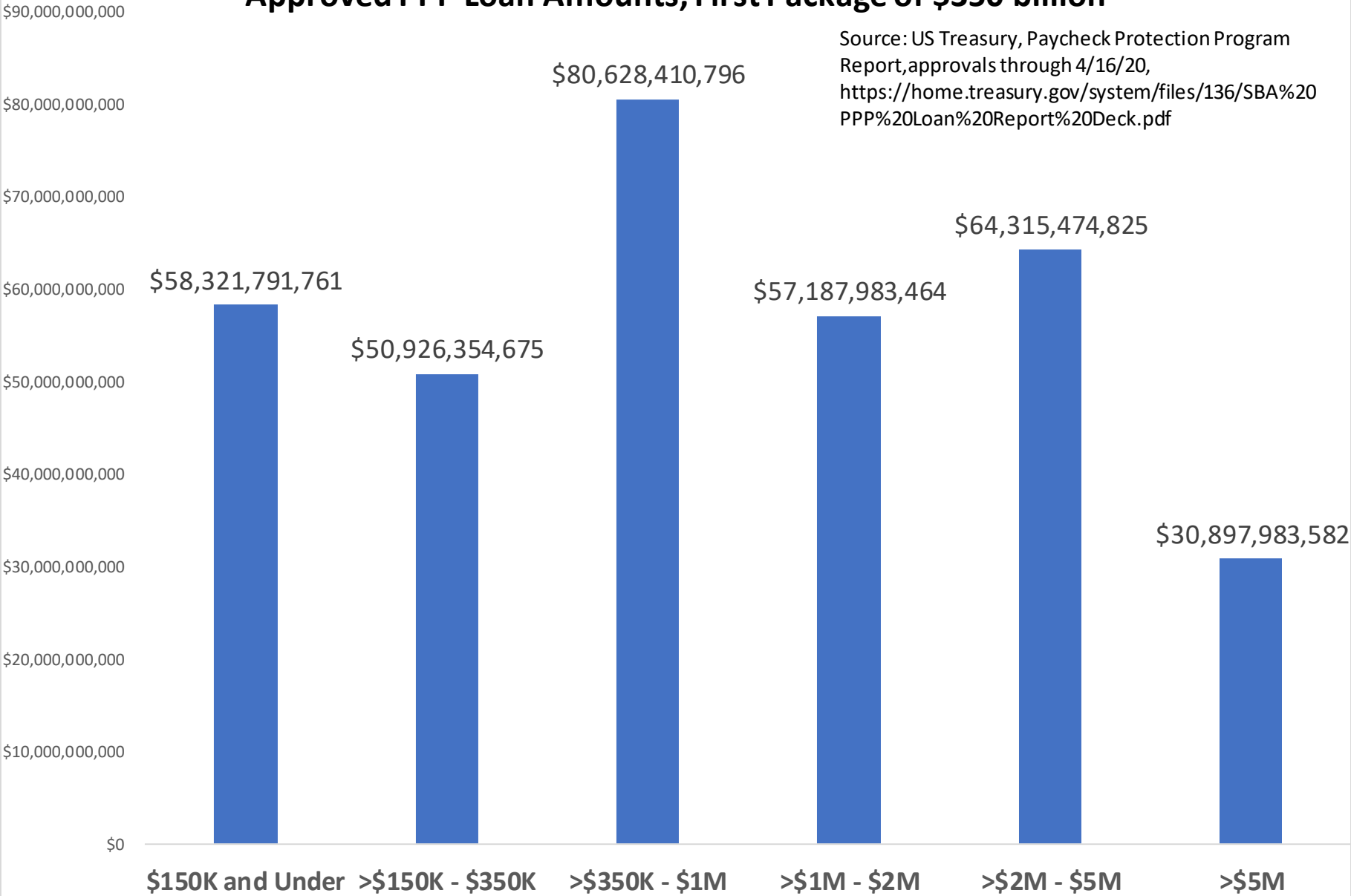
1. Public policy is to pay people not to work. Kentucky employers and employees responded at one of the highest rates in the US. Probably 20% of employees filed over last 6 weeks.
2. Average weekly state payment is \$350, plus \$600 federal supplement. This amounts to almost \$50,000 per year, much higher than the average pay of those in most impacted industries.
3. Assuming 12 weeks of benefits, this amounts to \$1.6 billion in payments from the Kentucky UI Trust Fund. It had a balance of only \$619 million.
4. State will obviously have to borrow from the federal trust fund. Assuming a three-year payback schedule, this will cause Kentucky employers to double UI premiums per employee from \$270 to \$550 per year. The extra premiums will not be experience-rated as usual: cost will be spread proportionally over all employers.
5. But federal UI supplement, under above assumptions, will pump \$2.7 billion into Kentucky workers' pockets (\$720 million to Jefferson County workers) over the next 2-3 months.

Paycheck Protection Program



Approved PPP Loan Amounts, First Package of \$350 billion

Source: US Treasury, Paycheck Protection Program Report, approvals through 4/16/20, <https://home.treasury.gov/system/files/136/SBA%20PPP%20Loan%20Report%20Deck.pdf>



Kentucky received \$4.1 billion in first round.

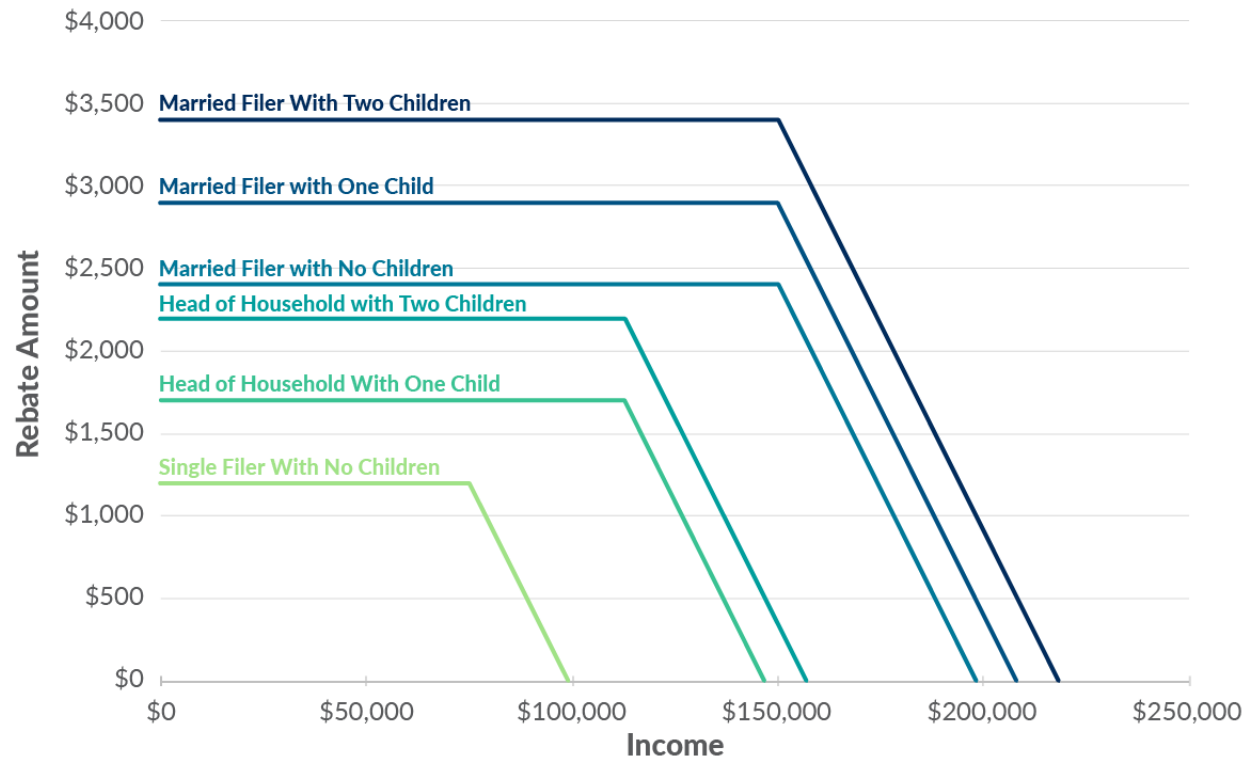
This was 1.21% of national total (KY has 1.04% of national wages and salaries).

IRS Economic Impact Payments to Households

Total authorized is \$301 billion, payable to households based on prior income and household composition.

Relief Rebate in the CARES Act

Individual Economic Relief Rebate By Filing Status



Source: "Coronavirus Aid, Relief, and Economic Security Act"

Jefferson County has 0.25% of US tax filers with adjusted gross income of less than \$200,000.

So, roughly, County households are now receiving about \$746 million in deposits and checks.

Will those 360,000 'households' choose to remodel homes, buy TVs, travel.....or save?

Possible Economic Path over the Next Year

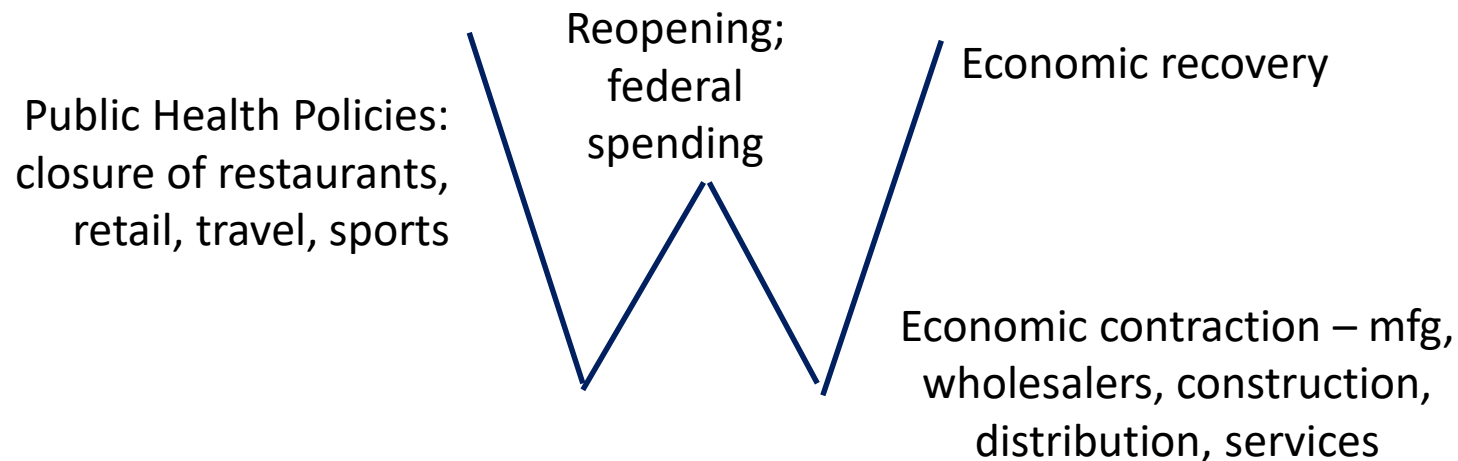
V U L W ?

V might have been possible if federal-state policies had pivoted after a month of information; economy would have paused, but not cascade into recession.

U is still possible, though every week of 'stay at home' that passes increases probability of more severe recession; also, people are spooked, and will be reluctant to return to travel, attend conventions, sporting and music events, stay in hotels.

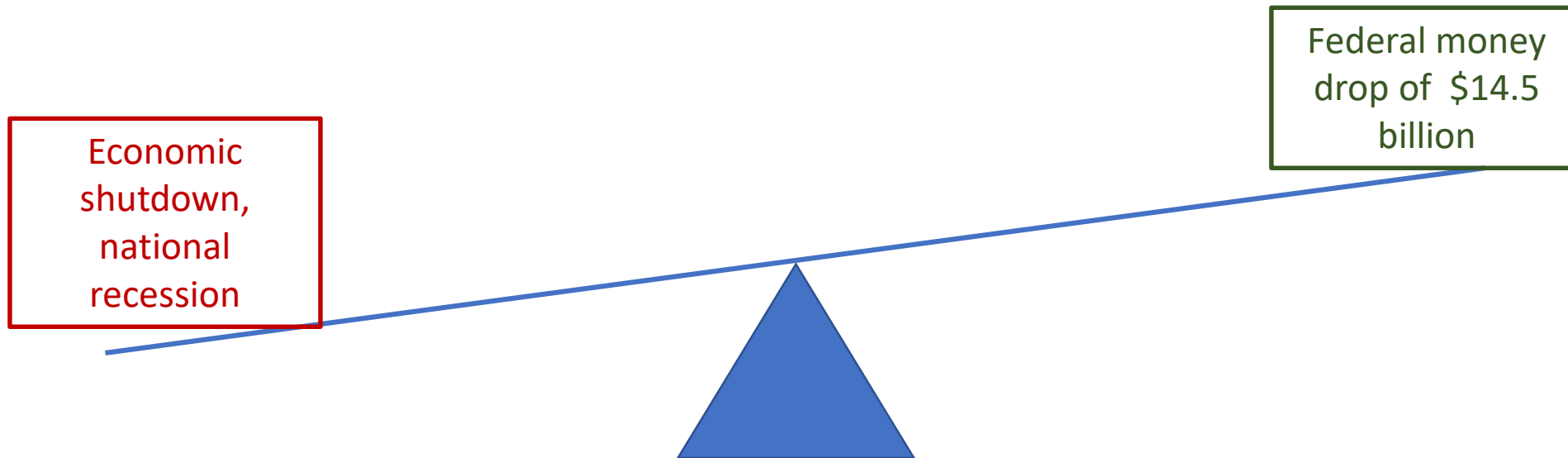
L not likely, given the amount of federal dollars flowing in, and Americans' need to reopen businesses, get back to work, pay mortgages, have family events.

W increasingly likely:



The longer the shutdown lasts, the higher the likelihood that we will have a 2-3 quarter recession, despite the federal money pouring in.

Restaurant, travel, hotel, sports, retail will reopen partially; but economic benefit will be more than offset by business contractions, layoffs, and bankruptcies in other industries.



I hope I am wrong!