In [ ]:

```
%%sql
/*
Data Sources:
*State Spending-
https://www.usaspending.gov/state
*Population by State (2020)-
https://data.census.gov/table?q=population+by+state&tid=DECENNIALPL2020.P1&tp=true
*Square Area by State (2010) (Last Revised 2021)-
https://www.census.gov/geographies/reference-files/2010/geo/state-area.html
*Median and Mean Income by State (2019-2022)-
2020 ACS 5-Year Estimates Subject Tables
2021 ACS 1-Year Estimates Subject Tables
2019 ACS 1-Year Estimates Subject Tables
https://data.census.gov/table?q=income+by+state
*Poverty Line Threshold by State-
https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines
*Amount of COVID-19 Relief by State (January 25, 2022)-
https://www.pgpf.org/understanding-the-coronavirus-crisis/coronavirus-funding-state-by-state
*State Unemployment Rate (October 2022)-
https://www.bls.gov/web/laus/laumstrk.htm
*State Inflation (2021-2022)-
https://www.jec.senate.gov/public/index.cfm/republicans/state-inflation-tracker
*National Unemployment-
https://www.bls.gov/#:~:text=Homepage%20Sections&text=Total%20nonfarm%20payroll%20employment%20increased,and%20in%20tra

Data Set Processing Procedure:
*State Inflation-
Excel --> Get Data From Web --> Transform to clean format in Power Query Editor by
removing the first four rows, renaming columns, removing the second column -->
Changed the text data types into decimal/float numbers for all columns

*Renaming Census Files

*Square Area by State-
Delete the First Three Rows

Importing Procedure:
Census Population-
        First Column: geography
        Second Column: state
        Third Column: population

Income 2019-
```

```
        First Column: geography
        Second Column: state
        47th Column: household median income
        (Change Data Type to Float)
        51st Column: household mean income
        (Change Data Type to Float)

Income 2020-
        First Column: geography
        Second Column: state
        47th Column: household median income
        (Change Data Type to Float)
        51st Column: household mean income
        (Change Data Type to Float)

Income 2021-
        First Column: geography
        Second Column: state
        47th Column: household median income
        (Change Data Type to Float)
        51st column: household mean income
        (Change Data Type to Float)

State Funding COVID-19 Programs-
        Third Column: Total Per Capita

State Land Area-
        First Column: State and Other Areas
        Second Column: Total Area Sq Mi
        Third Column: Total Area Sq Km
        Sixth Column: Water Area Total Sq Mi
        Seventh Column: Water Area Total Sq Km

State Spending-
        In Excel, delete the initials for the states using the Text to
        Columns tool in Excel and putting the delimiter as '('

State Unemployment-
        Second Column: Unemployment Rate 10/22

Two Year State Inflation-
        Allow nulls for Energy_Monthly_Inflation_Costs
*/
```

Census Population CSV Preview

GEO_ID	NAME	P1_001N	P1_001NA	P1_002N	P1_002NA	P1_003N	P1_003I
Geography	Geographic Area Name	!!Total:	Annotation of !!Total:	!!Total:!!Population of one race:	Annotation of !!Total:!!Population of one race:	!!Total:!!Population of one race:!!White alone	Annota
0400000US01	Alabama	5024279	null	4767326	null	3220452	null
0400000US02	Alaska	733391	null	643867	null	435392	null
0400000US04	Arizona	7151502	null	6154696	null	4322337	null
0400000US05	Arkansas	3011524	null	2797949	null	2114512	null
0400000US06	California	39538223	null	33777988	null	16296122	null
0400000US08	Colorado	5773714	null	5066044	null	4082927	null
0400000US09	Connecticut	3605944	null	3273040	null	2395128	null
0400000US10	Delaware	989948	null	913430	null	597763	null
0400000US11	District of Columbia	689545	null	633468	null	273194	null
0400000US12	Florida	21538187	null	17986115	null	12422961	null
0400000US13	Georgia	10711908	null	9968000	null	5555483	null
0400000US15	Hawaii	1455271	null	1087142	null	333261	null
0400000US16	Idaho	1839106	null	1685901	null	1510360	null
0400000US17	Illinois	12812508	null	11667524	null	7868227	null
0400000US18	Indiana	6785528	null	6348802	null	5241795	null
0400000US19	Iowa	3190369	null	3011086	null	2694521	null
0400000US20	Kansas	2937880	null	2657373	null	2222462	null
0400000US21	Kentucky	4505836	null	4260996	null	3711254	null
0400000US22	Louisiana	4657757	null	4384380	null	2657652	null

Income 2019 CSV Preview

GEO_ID	NAME	S1901_C01_001E	S1901_C01_001EA	S1901_C01_001M	S1901_C01_001MA	S1901_C0
Geography	Geographic Area Name	Estimate!!Households!!Total	Annotation of Estimate!!Households!!Total	Margin of Error!!Households!!Total	Annotation of Margin of Error!!Households!!Total	Estimate!
0400000US01	Alabama	1897576	null	10370	null	
0400000US02	Alaska	252199	null	3658	null	
0400000US04	Arizona	2670441	null	12014	null	
0400000US05	Arkansas	1163647	null	8530	null	
0400000US06	California	13157873	null	23844	null	
0400000US08	Colorado	2235103	null	10026	null	
0400000US09	Connecticut	1377166	null	6712	null	
0400000US10	Delaware	376239	null	3536	null	
0400000US11	District of Columbia	291570	null	3959	null	
0400000US12	Florida	7905832	null	23042	null	
0400000US13	Georgia	3852714	null	14425	null	
0400000US15	Hawaii	465299	null	5012	null	
0400000US16	Idaho	655859	null	5316	null	
0400000US17	Illinois	4866006	null	12627	null	
0400000US18	Indiana	2597765	null	12716	null	
0400000US19	Iowa	1287221	null	6606	null	
0400000US20	Kansas	1138329	null	6595	null	
0400000US21	Kentucky	1748732	null	8789	null	
0400000US22	Louisiana	1741076	null	11011	null	

Income 2020 CSV Preview

GEO_ID	NAME	S1901_C01_001E	S1901_C01_001EA	S1901_C01_001M	S1901_C01_001MA	S1901_C0
Geography	Geographic Area Name	Estimate!!Households!!Total	Annotation of Estimate!!Households!!Total	Margin of Error!!Households!!Total	Annotation of Margin of Error!!Households!!Total	Estimate!
0400000US01	Alabama	1888504	null	5749	null	
0400000US02	Alaska	255173	null	1326	null	
0400000US04	Arizona	2643430	null	6290	null	
0400000US05	Arkansas	1170544	null	4411	null	
0400000US06	California	13103114	null	18542	null	
0400000US08	Colorado	2137402	null	4703	null	
0400000US09	Connecticut	1385437	null	3268	null	
0400000US10	Delaware	370953	null	1823	null	
0400000US11	District of Columbia	288307	null	1319	null	
0400000US12	Florida	7931313	null	23200	null	
0400000US13	Georgia	3830264	null	8096	null	
0400000US15	Hawaii	467932	null	1883	null	
0400000US16	Idaho	649299	null	2233	null	
0400000US17	Illinois	4884061	null	8585	null	
0400000US18	Indiana	2602770	null	6793	null	
0400000US19	Iowa	1273941	null	4037	null	
0400000US20	Kansas	1141985	null	4096	null	
0400000US21	Kentucky	1748053	null	5379	null	
0400000US22	Louisiana	1751956	null	5502	null	

Income 2021 CSV Preview

GEO_ID	NAME	S1901_C01_001E	S1901_C01_001M	S1901_C01_001MA	S1901_C01_001EA	S1901_C0
Geography	Geographic Area Name	Estimate!!Households!!Total	Margin of Error!!Households!!Total	Annotation of Margin of Error!!Households!!Total	Annotation of Estimate!!Households!!Total	Estimate!
0400000US01	Alabama	1967559	10527	null	null	
0400000US02	Alaska	271311	3313	null	null	
0400000US04	Arizona	2817723	10850	null	null	
0400000US05	Arkansas	1183675	7882	null	null	
0400000US06	California	13429063	19170	null	null	
0400000US08	Colorado	2313042	8099	null	null	
0400000US09	Connecticut	1428313	5900	null	null	
0400000US10	Delaware	395656	4126	null	null	
0400000US11	District of Columbia	319565	3541	null	null	
0400000US12	Florida	8565329	25039	null	null	
0400000US13	Georgia	4001109	12817	null	null	
0400000US15	Hawaii	490080	5054	null	null	
0400000US16	Idaho	693882	4348	null	null	
0400000US17	Illinois	4991641	12428	null	null	
0400000US18	Indiana	2680694	9238	null	null	
0400000US19	Iowa	1300467	6514	null	null	
0400000US20	Kansas	1159026	5714	null	null	
0400000US21	Kentucky	1785682	8799	null	null	
0400000US22	Louisiana	1783924	7696	null	null	

COVID-19 State Funding CSV Preview

State	Total	Total Per Capita	Economic Impact Payments	Federal Pandemic Unemployment Compensation	Pandemic Emergency Unemployment Compensation	Pandemic Unemployment Assi
Alabama	46772	9539	12642	3057	722	
Alaska	11791	16119	1791	713	149	
Arizona	74339	10213	17704	8625	752	
Arkansas	28823	9551	7932	2144	194	
California	555068	14048	88511	87239	12104	
Colorado	63597	11043	13350	4642	1516	
Connecticut	44638	12520	7888	5106	1138	
Delaware	12388	12721	2393	764	177	
District of Columbia	15683	22222	1275	1369	386	
Florida	238556	11107	54484	17027	4991	
Georgia	121417	11436	25817	12137	2017	
Hawaii	21152	14939	3576	2589	953	
Idaho	18702	10465	4778	715	97	
Illinois	161984	12783	29636	16941	4123	
Indiana	67125	9971	17329	6299	708	
Iowa	31874	10103	8118	2082	382	
Kansas	29305	10059	7246	1530	278	
Kentucky	43856	9816	11951	4334	512	
Louisiana	59604	12821	11741	6107	567	
Maine	16956	12614	3629	1447	249	

State Unemployment CSV Preview

State	October 2022(p) rate	Rank
Minnesota	2.1	1
Utah	2.1	1
North Dakota	2.3	3
Vermont	2.3	3
Nebraska	2.4	5
New Hampshire	2.4	5
South Dakota	2.4	5
Missouri	2.6	8
Alabama	2.7	9
Florida	2.7	9
Virginia	2.7	9
Kansas	2.8	12
Georgia	2.9	13
Idaho	2.9	13
Iowa	2.9	13
Indiana	3	16
Montana	3	16
Louisiana	3.3	18
South Carolina	3.3	18
Wisconsin	3.3	18

State Spending CSV Preview

State	Awarded Amount from trailing 12 months	Percent of Total
Alabama	$54,624,603,206	1.36%
Alaska	$13,723,390,385	0.34%
Arizona	$96,540,726,758	2.40%
Arkansas	$29,058,275,279	0.72%
California	$377,862,717,214	9.40%
Colorado	$53,483,876,805	1.33%
Con necticut	$99,407,958,694	2.47%
Delaware	$9,893,200,431	0.25%
District of Columbia	$48,117,783,013	1.20%
Florida	$234,962,210,164	5.84%
Georgia	$79,617,553,644	1.98%
Hawaii	$15,191,462,347	0.38%
Idaho	$17,170,274,570	0.43%
Illinois	$107,423,259,407	2.67%
Indiana	$148,162,897,563	3.68%
Iowa	$27,018,507,588	0.67%
Kansas	$24,504,476,768	0.61%
Kentucky	$131,677,680,994	3.27%
Louisiana	$51,429,740,694	1.28%
Maine	$16,571,396,509	0.41%

State Inflation CSV Preview

State	State Code	Month	Increase in Prices Since Jan 2021 (%)	Total Monthly Inflation Costs ($)	Food Monthly Inflation Costs ($)	Shelter Monthly Inflation Costs ($)	Transportation Monthly Inflat
Alabama	AL	21-Jan	0	0	0	0	
Alabama	AL	21-Feb	1	27	2	1	
Alabama	AL	21-Mar	2	76	6	4	
Alabama	AL	21-Apr	2	113	7	5	
Alabama	AL	21-May	4	165	11	10	
Alabama	AL	21-Jun	5	210	15	14	
Alabama	AL	21-Jul	5	228	19	15	
Alabama	AL	21-Aug	5	225	26	12	
Alabama	AL	21-Sep	5	231	31	17	
Alabama	AL	21-Oct	6	273	36	23	
Alabama	AL	21-Nov	6	293	34	24	
Alabama	AL	21-Dec	6	284	36	23	
Alabama	AL	22-Jan	7	318	41	24	
Alabama	AL	22-Feb	8	370	49	30	
Alabama	AL	22-Mar	10	443	55	37	
Alabama	AL	22-Apr	10	478	65	39	
Alabama	AL	22-May	12	533	71	45	
Alabama	AL	22-Jun	13	614	80	49	
Alabama	AL	22-Jul	13	613	90	52	
Alabama	AL	22-Aug	13	587	90	58	

State Land Area CSV Preview

State and other areas2	Total Area Sq. Mi.	Total Area Sq. Km.	Land Area1 Sq. Mi.	Land Area1 Sq. Km.	Water Area1 Total Sq. Mi.	Water Area1 Total Sq. Km.	Water Area1 Inland Sq. Mi.	Water Area1 Inland Sq. Kı
Total3	3,805,927	9,857,306	3,535,932	9,158,022	269,995	699,284	85,763	222,
United States4	3,796,742	9,833,517	3,531,905	9,147,593	264,837	685,924	85,647	221,
Alabama	52,420	135,767	50,645	131,171	1,775	4,597	1,058	2,
Alaska	665,384	1,723,337	570,641	1,477,953	94,743	245,383	19,304	49,
Arizona	113,990	295,234	113,594	294,207	396	1,026	396	1,
Arkansas	53,179	137,732	52,035	134,771	1,143	2,961	1,143	2,
California	163,695	423,967	155,779	403,466	7,916	20,501	2,833	7,
Colorado	104,094	269,601	103,642	268,431	452	1,170	452	1,
Connecticut	5,543	14,357	4,842	12,542	701	1,816	171	
Delaware	2,489	6,446	1,949	5,047	540	1,399	91	
District of Columbia	68	177	61	158	7	19	7	
Florida	65,758	170,312	53,625	138,887	12,133	31,424	5,027	13,
Georgia	59,425	153,910	57,513	148,959	1,912	4,951	1,412	3,
Hawaii	10,932	28,313	6,423	16,635	4,509	11,678	42	
Idaho	83,569	216,443	82,643	214,045	926	2,398	926	2,
Illinois	57,914	149,995	55,519	143,793	2,395	6,202	820	2,
Indiana	36,420	94,326	35,826	92,789	593	1,537	361	
Iowa	56,273	145,746	55,857	144,669	416	1,077	416	1,
Kansas	82,278	213,100	81,759	211,754	520	1,346	520	1,
Kentucky	40,408	104,656	39,486	102,269	921	2,387	921	2,

In [ ]:
```
%%sql
/*
Selecting characteristics related to financial measures like government spending,
income, and unemployment that could show potential trends related to COVID-19 State
funding.
*/
```

In [ ]:

```
%%sql
--Query 1
SELECT pop.state as State,
        pop.population as Population,
        statespending.Awarded_Amount_from_trailing_12_months as [State Spending],
        ROUND(statespending.Awarded_Amount_from_trailing_12_months / pop.population, 2)
        as [State Spending Per Capita],
        statespending.Awarded_Amount_from_trailing_12_months / pop.population * 10000
        as [State Spending Per 10k Residents],
        COVID19.Total as [Total COVID-19 State Funding (In the Millions)],
        COVID19.[Total Per Capita] as [COVID-19 State Funding Per Capita],
        pop.population / [State Land Area].[Total Area Sq Mi]
        as [Population Density (Population/Total Area Sq Mi)],
        statespending.Awarded_Amount_from_trailing_12_months /
        (pop.population / [State Land Area].[Total Area Sq Mi])
        as [State Spending Normalized by Population Density],
        income2019.[household median income] as [2019 Household Median Income],
        income2020.[household median income] as [2020 Household Median Income],
        income2021.[household median income] as [2021 Household Median Income],
        CONCAT(ROUND((income2020.[household median income]-income2019.[household median income])
        /income2019.[household median income] * 100,2), '%') as
        [Household Median Income Percentage Change 2019-2020],
        CONCAT(ROUND((income2021.[household median income]-income2020.[household median income])/
        income2020.[household median income] * 100,2), '%') as
        [Household Median Income Percentage Change 2020-2021],
        income2019.[household mean income] as [2019 Household Mean Income],
        income2020.[household mean income] as [2020 Household Mean Income],
        income2021.[household mean income] as [2021 Household Mean Income],
        CONCAT(ROUND((income2020.[household mean income]-income2019.[household mean income])/
        income2019.[household mean income] * 100, 2), '%') as
        [Household Mean Income Percentage Change 2019-2020],
        CONCAT(ROUND((income2021.[household mean income]-income2020.[household mean income])/
        income2020.[household mean income] * 100, 2), '%') as
        [Household Mean Income Percentage Change 2020-2021],
        ROUND(stateunemployment.[Unemployment Rate 10/22],2) as [Unemployment Rate 10/22],
        stateunemployment.Rank as [Unemployment Rank],
        [State Land Area].[Total Area Sq Mi],
        [State Land Area].[Water Area Total Sq Mi]
FROM censuspopulation as pop
LEFT JOIN statespending
ON pop.state = statespending.State
LEFT JOIN statefundingcovidprograms as COVID19
ON pop.state = COVID19.State
LEFT JOIN income2019
ON pop.state = income2019.state
```

```
LEFT JOIN income2020
ON pop.state = income2020.state
LEFT JOIN income2021
ON pop.state = income2021.state
LEFT JOIN stateunemployment
ON pop.state = stateunemployment.state
LEFT JOIN statelandarea as [State Land Area]
ON pop.state = [State Land Area].[State and Other Areas]
ORDER BY statespending.Awarded_Amount_from_trailing_12_months DESC;
```

Query 1 Result

	State	Population	State Spending	State Spending Per Capita	State Spending Per 10k Residents	Total COVID-19 State Funding (In the Millions)	COVID-19 State Funding Per Capita
1	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048
2	Texas	29145505	248992420955.00	8543.08	85430813.00	321682	11094
3	New York	20201249	237236107276.00	11743.64	117436356.00	334275	17183
4	Florida	21538187	234962210164.00	10909.10	109090988.00	238556	11107
5	Pennsylvania	13002700	214262481214.00	16478.31	164783069.00	165527	12930
6	Minnesota	5706494	179853659765.00	31517.37	315173659.00	64918	11511
7	Indiana	6785528	148162897563.00	21835.13	218351317.00	67125	9971
8	Virginia	8631393	138536727947.00	16050.33	160503325.00	84770	9931

In [ ]:
```
%%sql
/*
Selecting the same characteristics in the last query but including the
monthly state-level inflation rate for a two-year period between 2021-2022.
*/
```

In [ ]:
```
%%sql
--Query 2
SELECT pop.state as State,
        pop.population as Population,
        statespending.Awarded_Amount_from_trailing_12_months as [State Spending],
        ROUND(statespending.Awarded_Amount_from_trailing_12_months / pop.population, 2)
        as [State Spending Per Capita],
        statespending.Awarded_Amount_from_trailing_12_months / pop.population * 10000
        as [State Spending Per 10k Residents],
        COVID19.Total as [Total COVID-19 State Funding (In the Millions)],
        COVID19.[Total Per Capita] as [COVID-19 State Funding Per Capita],
        pop.population / [State Land Area].[Total Area Sq Mi]
        as [Population Density (Population/Total Area Sq Mi)],
        statespending.Awarded_Amount_from_trailing_12_months /
        (pop.population / [State Land Area].[Total Area Sq Mi]) as
        [State Spending Normalized by Population Density],
        twoyearstateinflation.Month,
```

```
        twoyearstateinflation.Increase_in_Prices_Since_Jan_2021
        as [Percent Price Increase Since 1/2021],
        twoyearstateinflation.Total_Monthly_Inflation_Costs
        as [Total Monthly Inflation Costs],
        income2019.[household median income] as [2019 Household Median Income],
        income2020.[household median income] as [2020 Household Median Income],
        income2021.[household median income] as [2021 Household Median Income],
        CONCAT(ROUND((income2020.[household median income]-
        income2019.[household median income])/
        income2019.[household median income] * 100,2), '%') as
        [Household Median Income Percentage Change 2019-2020],
        CONCAT(ROUND((income2021.[household median income]-
        income2020.[household median income])/
        income2020.[household median income] * 100,2), '%') as
        [Household Median Income Percentage Change 2020-2021],
        income2019.[household mean income] as [2019 Household Mean Income],
        income2020.[household mean income] as [2020 Household Mean Income],
        income2021.[household mean income] as [2021 Household Mean Income],
        CONCAT(ROUND((income2020.[household mean income]-
        income2019.[household mean income])/
        income2019.[household mean income] * 100, 2), '%') as
        [Household Mean Income Percentage Change 2019-2020],
        CONCAT(ROUND((income2021.[household mean income]-
        income2020.[household mean income])/
        income2020.[household mean income] * 100, 2), '%') as
        [Household Mean Income Percentage Change 2020-2021],
        ROUND(stateunemployment.[Unemployment Rate 10/22],2) as
        [Unemployment Rate 10/22],
        stateunemployment.Rank as [Unemployment Rank],
        [State Land Area].[Total Area Sq Mi],
        [State Land Area].[Water Area Total Sq Mi]
FROM censuspopulation as pop
LEFT JOIN statespending
ON pop.state = statespending.State
LEFT JOIN statefundingcovidprograms as COVID19
ON pop.state = COVID19.State
LEFT JOIN income2019
ON pop.state = income2019.state
LEFT JOIN income2020
ON pop.state = income2020.state
LEFT JOIN income2021
ON pop.state = income2021.state
LEFT JOIN stateunemployment
ON pop.state = stateunemployment.state
LEFT JOIN statelandarea as [State Land Area]
```

```
ON pop.state = [State Land Area].[State and Other Areas]
LEFT JOIN twoyearstateinflation
ON pop.state = twoyearstateinflation.State
ORDER BY statespending.Awarded_Amount_from_trailing_12_months DESC;
```

Query 2 Result

	State	Population	State Spending	State Spending Per Capita	State Spending Per 10k Residents	Total COVID-19 State Funding (In the Millions)	COVID-19 State Funding Per Capita
1	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048
2	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048
3	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048
4	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048
5	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048
6	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048
7	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048
8	California	39538223	377862717214.00	9556.90	95568968.00	555068	14048

In [ ]:
```
%%sql
/*
This query selects the state median income percent changes from 2019
to 2020, COVID-19 state funding, and the state unemployment rate from
the 10 states with the highest COVID-19 state funding amounts.
*/
```

In [ ]:
```
%%sql
--Query 3
SELECT TOP 10
        pop.state as State,
        ROUND((income2020.[household median income]-
        income2019.[household median income])/
        income2019.[household median income] * 100, 2) as
        [Household Median Income Percentage Change 2019-2020],
        statefundingcovidprograms.Total as
        [Total COVID-19 State Funding (In the Millions)],
        CONCAT(ROUND(stateunemployment.[Unemployment Rate 10/22], 2), '%')
        as [Unemployment Rate 10/22]
FROM censuspopulation as pop
LEFT JOIN income2019
ON pop.state = income2019.state
LEFT JOIN income2020
ON pop.state = income2020.state
LEFT JOIN statefundingcovidprograms
ON pop.state = statefundingcovidprograms.state
LEFT JOIN stateunemployment
```

```
ON pop.state = stateunemployment.State
ORDER BY 2 DESC;
```

Query 3 Result

	State	Household Median Income Percentage Change 2019-2020	Total COVID-19 State Funding (In the Millions)	Unemployment Rate 10/22
1	Alaska	3.08	11791	4.5%
2	Puerto Rico	2.85	NULL	%
3	Mississippi	1.57	32459	3.8%
4	Connecticut	1.3	44638	4.3%
5	North Dak...	1.14	11319	2.3%
6	Indiana	1.1	67125	3%
7	Arkansas	1.07	28823	3.6%
8	Maine	0.96	16956	3.6%

In [ ]:
```
%%sql
/*
This query selects the state median income percent changes from 2019
to 2020, COVID-19 state funding, and the state unemployment rate from
the 10 states with the lowest COVID-19 state funding amounts.
*/
```

In [ ]:
```
%%sql
--Query 4
SELECT TOP 10
        pop.state as State,
        ROUND((income2020.[household median income]-
        income2019.[household median income])/
        income2019.[household median income] * 100, 2) as
        [Household Median Income Percentage Change 2019-2020],
        statefundingcovidprograms.Total as
        [Total COVID-19 State Funding (In the Millions)],
        CONCAT(ROUND(stateunemployment.[Unemployment Rate 10/22], 2), '%')
        as [Unemployment Rate 10/22]
FROM censuspopulation as pop
LEFT JOIN income2019
ON pop.state = income2019.state
LEFT JOIN income2020
ON pop.state = income2020.state
LEFT JOIN statefundingcovidprograms
ON pop.state = statefundingcovidprograms.state
LEFT JOIN stateunemployment
```

```
ON pop.state = stateunemployment.State
ORDER BY 2 ASC;
```

Query 4 Result

	State	Household Median Income Percentage Change 2019-2020	Total COVID-19 State Funding (In the Millions)	Unemployment Rate 10/22
1	Idaho	-3.42	18702	2.9%
2	Florida	-2.57	238556	2.7%
3	Color...	-2.46	63597	3.6%
4	Sout...	-2.42	48264	3.3%
5	Ten...	-2.21	67642	3.5%
6	Calif...	-2.2	555068	4%
7	Was...	-2.14	88264	3.8%
8	Utah	-2.09	28768	2.1%

In [ ]:
```
%%sql
/*
We see higher magnitude changes in come from 2020 to 2021 than from
2019 to 2020 mostly due to the rounds of stimulus checks and part of
the economic recovery from the pandemic in 2021.
*/
```

In [ ]:
```
%%sql
/*
This query selects the state median income percent changes from 2020
to 2021, COVID-19 state funding, and the state unemployment rate from
the 10 states with the highest COVID-19 state funding amounts.
*/
```

In [ ]:
```
%%sql
--Query 5
SELECT TOP 10
        pop.state as State,
        ROUND((income2021.[household median income]-
        income2020.[household median income])/
        income2020.[household median income] * 100, 2) as
        [Household Median Income Percentage Change 2020-2021],
        statefundingcovidprograms.Total as
        [Total COVID-19 State Funding (In the Millions)],
        CONCAT(ROUND(stateunemployment.[Unemployment Rate 10/22], 2), '%')
        as [Unemployment Rate 10/22]
FROM censuspopulation as pop
```

```
LEFT JOIN income2020
ON pop.state = income2020.state
LEFT JOIN income2021
ON pop.state = income2021.state
LEFT JOIN statefundingcovidprograms
ON pop.state = statefundingcovidprograms.state
LEFT JOIN stateunemployment
ON pop.state = stateunemployment.State
ORDER BY 2 DESC;
```

Query 5 Result

	State	Household Median Income Percentage Change 2020-2021	Total COVID-19 State Funding (In the Millions)	Unemployment Rate 10/22
1	Vermont	14.11	10162	2.3%
2	New Hampshire	13.53	15929	2.4%
3	Idaho	12.83	18702	2.9%
4	Arizona	12.23	74339	3.9%
5	Montana	11.87	12911	3%
6	South Dakota	10.43	11564	2.4%
7	North Carolina	9.41	99216	3.8%
8	Washington	9.4	88264	3.8%

In [ ]:
```
%%sql
/*
This query selects the state median income percent changes from 2020
to 2021, COVID-19 state funding, and the state unemployment rate from
the 10 states with the lowest COVID-19 state funding amounts.
*/
```

In [ ]:
```
%%sql
--Query 6
SELECT TOP 10
        pop.state as State,
        ROUND((income2021.[household median income]-
        income2020.[household median income])/
        income2020.[household median income] * 100, 2) as
        [Household Median Income Percentage Change 2020-2021],
        statefundingcovidprograms.Total as
        [Total COVID-19 State Funding (In the Millions)],
        CONCAT(ROUND(stateunemployment.[Unemployment Rate 10/22], 2), '%')
        as [Unemployment Rate 10/22]
FROM censuspopulation as pop
LEFT JOIN income2020
```

```
ON pop.state = income2020.state
LEFT JOIN income2021
ON pop.state = income2021.state
LEFT JOIN statefundingcovidprograms
ON pop.state = statefundingcovidprograms.state
LEFT JOIN stateunemployment
ON pop.state = stateunemployment.State
ORDER BY 2 ASC;
```

Query 6 Result

	State	Household Median Income Percentage Change 2020-2021	Total COVID-19 State Funding (In the Millions)	Unemployment Rate 10/22
1	District of Columbia	-0.83	15683	4.8%
2	Wyoming	-0.15	8432	3.5%
3	Alaska	0.07	11791	4.5%
4	North Dakota	1.84	11319	2.3%
5	Hawaii	2.02	21152	3.4%
6	Louisiana	2.53	59604	3.3%
7	Delaware	2.87	12388	4.3%
8	Alabama	3.61	46772	2.7%

In [ ]:
```
%%sql
/*
This query selects the state, unemployment rank, and unemployment rate
from the 10 states with the highest unemployment rates.
(3.7% is the National Unemployment in November 2022 according to the
Bureau of Labor Statistics (bls.gov))
*/
```

In [ ]:
```
%%sql
--Query 7
SELECT TOP 10
State,
rank as [Unemployment Rank],
ROUND([Unemployment Rate 10/22], 3) as [Unemployment Rate 10/22]
FROM stateunemployment
ORDER BY [Unemployment Rate 10/22] DESC;
```

Query 7 Result

	State	Unemployment Rank	Unemployment Rate 10/22
1	District of Columbia	51	4.8
2	Illinois	49	4.6
3	Nevada	49	4.6
4	Alaska	47	4.5
5	Maryland	47	4.5
6	New York	46	4.4
7	Connecticut	43	4.3
8	Delaware	43	4.3

In [ ]:
```
%%sql
/*
This query selects the state, unemployment rank, and unemployment rate
from the 10 states with the lowest unemployment rates.
*/
```

In [ ]:
```
%%sql
--Query 8
SELECT TOP 10
State,
rank as [Unemployment Rank],
ROUND([Unemployment Rate 10/22], 3) as [Unemployment Rate 10/22]
FROM stateunemployment
ORDER BY [Unemployment Rate 10/22] ASC;
```

Query 8 Result

	State	Unemployment Rank	Unemployment Rate 10/22
1	Utah	1	2.1
2	Minnesota	1	2.1
3	Vermont	3	2.3
4	North D...	3	2.3
5	South D...	5	2.4
6	New Ha...	5	2.4
7	Nebraska	5	2.4
8	Missouri	8	2.6

In [ ]:
```
%%sql
/*
This query selects the state and the total amount of
```

```
COVID-19 state funding from the top 10 states who received
the most COVID-19 state funding.
*/
```

In [ ]:
```
%%sql
--Query 9
SELECT TOP 10
pop.state as State,
Total as [Total Dollars (In the Millions)]
FROM censuspopulation as pop
LEFT JOIN statefundingcovidprograms
ON pop.state = statefundingcovidprograms.State
ORDER BY 2 DESC;
```

Query 9 Result

	State	Total Dollars (In the Millions)
1	California	555068
2	New York	334275
3	Texas	321682
4	Florida	238556
5	Pennsyl...	165527
6	Illinois	161984
7	Michigan	130276
8	New Jer...	129074

In [ ]:
```
%%sql
/*
This query selects the state and the total amount of
COVID-19 state funding from the 10 states who received
the least COVID-19 state funding.
*/
```

In [ ]:
```
%%sql
--Query 10
SELECT TOP 10
pop.state as State,
statefundingcovidprograms.Total as [Total Dollars (In the Millions)]
FROM censuspopulation as pop
LEFT JOIN statefundingcovidprograms
ON pop.state = statefundingcovidprograms.State
```

```
WHERE statefundingcovidprograms.Total IS NOT NULL
ORDER BY 2 ASC;
```

Query 10 Result

	State	Total Dollars (In the Millions)
1	Wyoming	8432
2	Vermont	10162
3	North D...	11319
4	South ...	11564
5	Alaska	11791
6	Delaware	12388
7	Montana	12911
8	District ...	15683