Washington State University
MIS 420 – Business Intelligence
Online

Mauricio Featherman, Ph.D.

T-SQL #6

Name: Nam Jun Lee

Student Number: 11606459

List of Decision Criteria

Decision Criteria 1: Level of Population change & Median Income of the State
The level of population change and median income of a state are important factors to consider when evaluating migration options. States with a high level of population growth are desirable, as are those with a high median income. The latter is especially important as it can attract skilled workers seeking to advance their careers and enjoy a good standard of living.

Decision Criteria 2:
Level of poverty, High School graduation and Unemployment in the State
The level of poverty, high school graduation rates, and unemployment in a state are closely interrelated. A lower high school graduation rate often leads to higher unemployment rates and increased poverty levels. It is crucial to consider these factors when evaluating migration options, as high levels of poverty can also lead to higher crime rates.

Decision Criteria 3: Level of retires & Over 65 in the State
States with a higher retirement population should provide robust healthcare and ample services for retirees. This is why the proportion of the population aged 65 or older, and the level of retirement in a state, are essential factors to consider when evaluating migration options.

Decision Criteria 4: GDP growth, and Level of new job in the State
The growth rate of a state's GDP and the level of new job creation are vital factors to consider when evaluating migration options. Higher GDP growth rates can lead to a higher standard of living and increased innovation, while a strong job market can provide a better chance of employment opportunities for those looking to move.

Decision Criteria 5: Economic growth in the State
Small and medium-sized enterprises (SMEs) play a vital role in the US economy. Therefore, the proportion of SMEs in a state is essential to consider when evaluating migration options. Higher proportions of SMEs often correspond to higher GDP growth rates, indicating a prosperous and growing economy.

Decision Criteria 6: Breweries & Wineries, and Median income of the State
The presence of breweries and wineries in a state can improve one's quality of life. However, it is also crucial to consider the median income of the state when evaluating migration options, as a low median income could negatively impact one's financial situation despite the presence of breweries and wineries.

**Decision Criteria 7: Racial makeup & Level of new job in the State**
The racial makeup of a state can be an essential factor to consider when evaluating migration options. For instance, individuals of Asian descent may prefer to live in a state with a high proportion of Asians. However, it is also important to consider the job market in a state, as a high racial makeup but low job opportunities could lead to difficulty finding employment.

Decision Criteria 1:
# Level of Population change & Median Income of the State

Resultant array

	State	State Name	Pop 1990	Pop 2000	Pop 2010	Pop 2018	Pop Change	Median Income	Pop Change Group	Median Income Label
1	AL	Alabama	550043	626933	710249	737438	0.04	40577	Slow Increase	Low
2	AK	Alaska	4040389	4447207	4780138	4887871	0.02	52099	Slow Increase	Medium
3	AR	Arizona	3665339	5130247	6392288	7171646	0.12	35593	Fast Increase	Low
4	AZ	Arkansas	2350624	2673293	2916028	3013825	0.03	42495	Slow Increase	Low
5	CA	California	29811427	33871653	37254523	39557045	0.06	62097	Moderate Increase	Medium
6	CO	Colorado	3294473	4302086	5029316	5695564	0.13	58857	Fast Increase	Medium
7	CT	Connecticut	3287116	3405650	3574147	3572665	0.00	75149	Stagnant	High
8	DE	Delaware	666168	783559	897934	967171	0.08	61792	Moderate Increase	Medium
9	DC	District of Columbia	606900	572086	601766	702455	0.17	70848	Fast Increase	High
10	FL	Florida	12938071	15982571	18804580	21299325	0.13	49811	Fast Increase	Low
11	GA	Georgia	6478149	8186653	9688709	10519475	0.09	39781	Moderate Increase	Low
12	HI	Hawaii	1108229	1211497	1360307	1420491	0.04	64708	Slow Increase	Medium
13	ID	Idaho	1006734	1293957	1567657	1754208	0.12	42484	Fast Increase	Low
14	IL	Illinois	11430602	12419927	12831572	12741080	-0.01	54052	Decrease	Medium
15	IN	Indiana	5544156	6080827	6484061	6691878	0.03	47713	Slow Increase	Low
16	IA	Iowa	2776831	2926538	3046872	3156145	0.04	48116	Slow Increase	Low
17	KS	Kansas	2477588	2688925	2853126	2911505	0.02	44838	Slow Increase	Low
18	KY	Kentucky	3686892	4042193	4339333	4468402	0.03	45683	Slow Increase	Low
19	LA	Louisiana	4221826	4469035	4533485	4659978	0.03	41635	Slow Increase	Low
20	ME	Maine	6016425	6349364	6547790	6902149	0.05	45397	Moderate Increase	Low
21	MD	Maryland	4780753	5296647	5773798	6042718	0.05	78126	Moderate Increase	High
22	MA	Massachusetts	1227928	1274779	1328369	1338404	0.01	71765	Slow Increase	High
23	MI	Michigan	9295287	9938823	9884117	9995915	0.01	44685	Slow Increase	Low
24	MN	Minnesota	4375665	4919631	5303925	5611179	0.06	51678	Moderate Increase	Medium
25	MS	Mississippi	2575475	2844754	2968118	2986530	0.01	35002	Slow Increase	Low
26	MO	Missouri	5116901	5596564	5988952	6126452	0.02	41747	Slow Increase	Low
27	MT	Montana	799065	902200	989409	1062305	0.07	45119	Moderate Increase	Low
28	NE	Nebraska	1578417	1711230	1826305	1929268	0.06	46582	Moderate Increase	Low
29	NV	Nevada	1201675	1998250	2700679	3034392	0.12	57322	Fast Increase	Medium
30	NH	New Hampshire	1109252	1235807	1316464	1356458	0.03	54026	Slow Increase	Medium
31	NJ	New Jersey	7747750	8414764	8791962	8908520	0.01	80584	Slow Increase	High
32	NM	New Mexico	1515069	1819017	2059180	2095428	0.02	40952	Slow Increase	Low
33	NY	New York	17990778	18977026	19378124	19542209	0.01	69890	Slow Increase	Medium
34	NC	North Carolina	6632448	8046346	9535736	10383620	0.09	43302	Moderate Increase	Low
35	ND	North Dakota	638800	642237	672576	760077	0.13	52141	Fast Increase	Medium
36	OH	Ohio	10847115	11353336	11536757	11689442	0.01	50457	Slow Increase	Medium
37	OK	Oklahoma	3145576	3450451	3751583	3943079	0.05	40447	Moderate Increase	Low
38	OR	Oregon	2842337	3421524	3831075	4190713	0.09	48088	Moderate Increase	Low
39	PA	Pennsylvania	11882842	12280548	12702873	12807060	0.01	51758	Slow Increase	Medium
40	RI	Rhode Island	1003464	1048259	1052957	1057315	0.00	64537	Stagnant	Medium
41	SC	South Carolina	3486310	4012023	4625381	5084127	0.10	39787	Fast Increase	Low
42	SD	South Dakota	696004	754858	814198	882235	0.08	45408	Moderate Increase	Low
43	TN	Tennessee	4877203	5689427	6346286	6770010	0.07	42249	Moderate Increase	Low
44	TX	Texas	16986335	20851028	25146114	28701845	0.14	51335	Fast Increase	Medium
45	UT	Utah	1722850	2233183	2763891	3161105	0.14	60216	Fast Increase	Medium
46	VT	Vermont	6189197	7079057	8001055	8517685	0.07	46284	Moderate Increase	Low
47	VA	Virginia	562758	608613	625744	626299	0.00	61867	Stagnant	Medium
48	WA	Washington	4866669	5894281	6724540	7535591	0.12	59315	Fast Increase	Medium
49	WV	West Virginia	4891954	5363757	5687282	5813568	0.02	39097	Slow Increase	Low
50	WI	Wisconsin	1793477	1808193	1853001	1805832	-0.03	50411	Decrease	Medium
51	WY	Wyoming	453589	493786	563773	577737	0.03	60874	Slow Increase	Medium

Part 1

Count of Median Income Label by Pop Change Group

Median Income Label ● High ● Low ● Medium
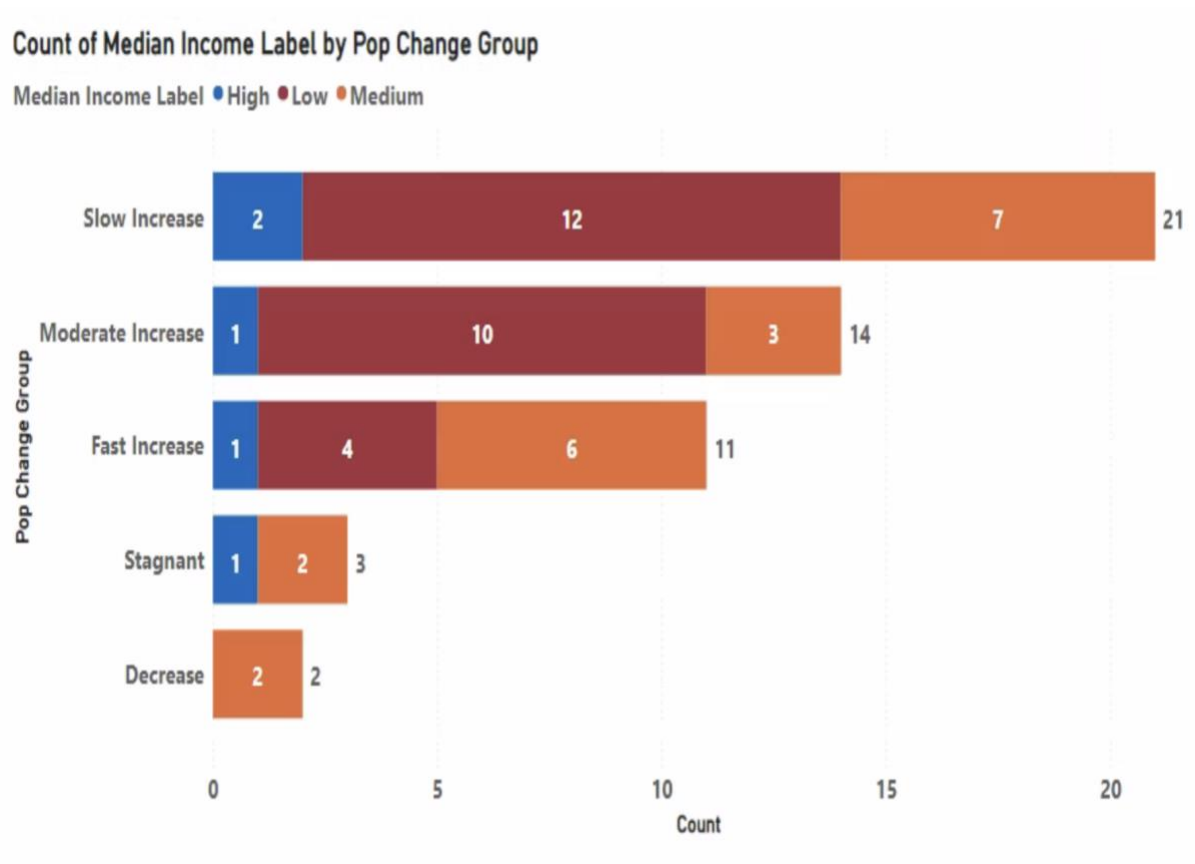
Based on the above graph, I prefer to live in a state with a high population growth rate. However, there are a total of 11 states with high population growth rates, and I prefer to live in a state with an above-median income. Therefore, my options have narrowed down to 7 states through this criterion.

Part 2
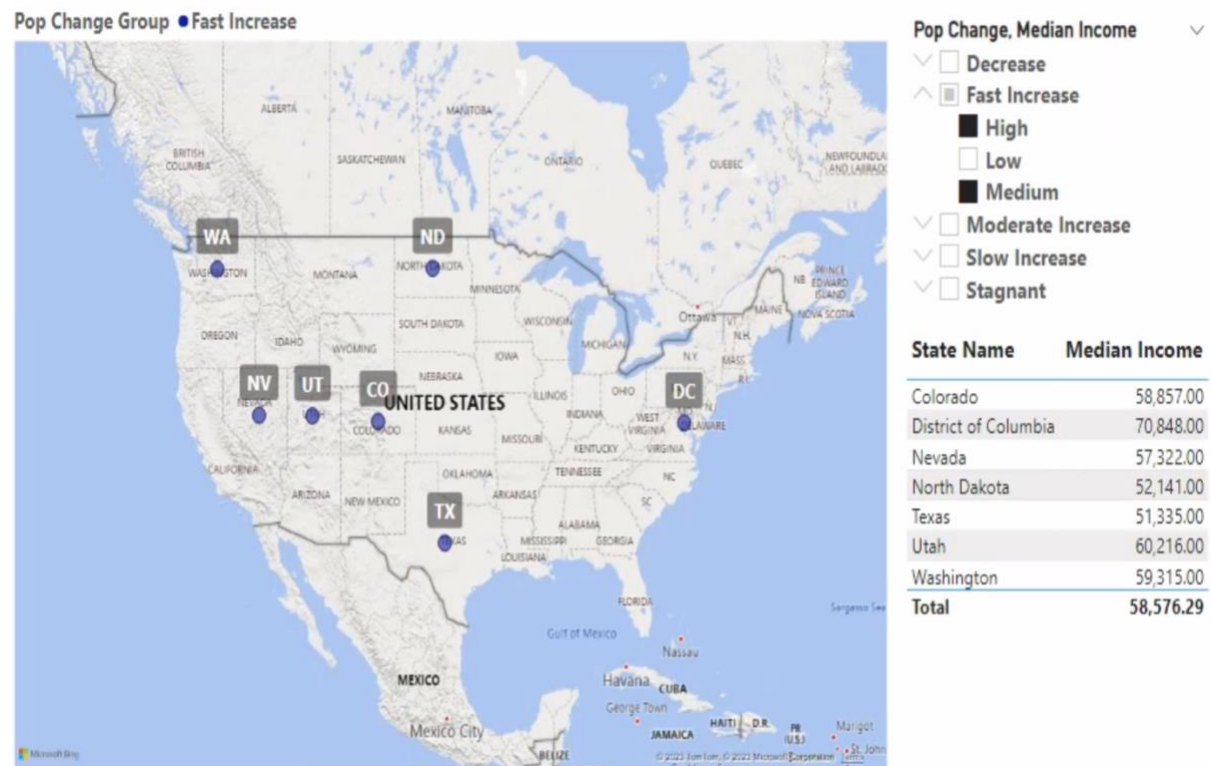
The above graph illustrates the detailed states that fulfill the decision criteria based on population change rate and median income. The criteria have been used to identify seven states that exhibit both a fast increase in population change and either a high or medium median income. Seven states are Colorado, District of Columbia, Nevada, North Dakota, Texas, Utah, and Washington.

Ultimately, based on the Part 1 graph, it is concluded that there is no correlation between population change ratio and median income. This is because groups with rapidly increasing population growth are distributed among groups with lower median incomes, while groups with stagnant or decreasing population growth are distributed among groups with higher or middle median incomes.

Furthermore, through Part 2, the states that meet my selected decision criteria are ultimately **Colorado**, **District of Columbia**, **Nevada**, **North Dakota**, and **Texas**. The median average income of these five states is $58,576.29, fulfilling my decision criteria of rapid population growth and high median income.
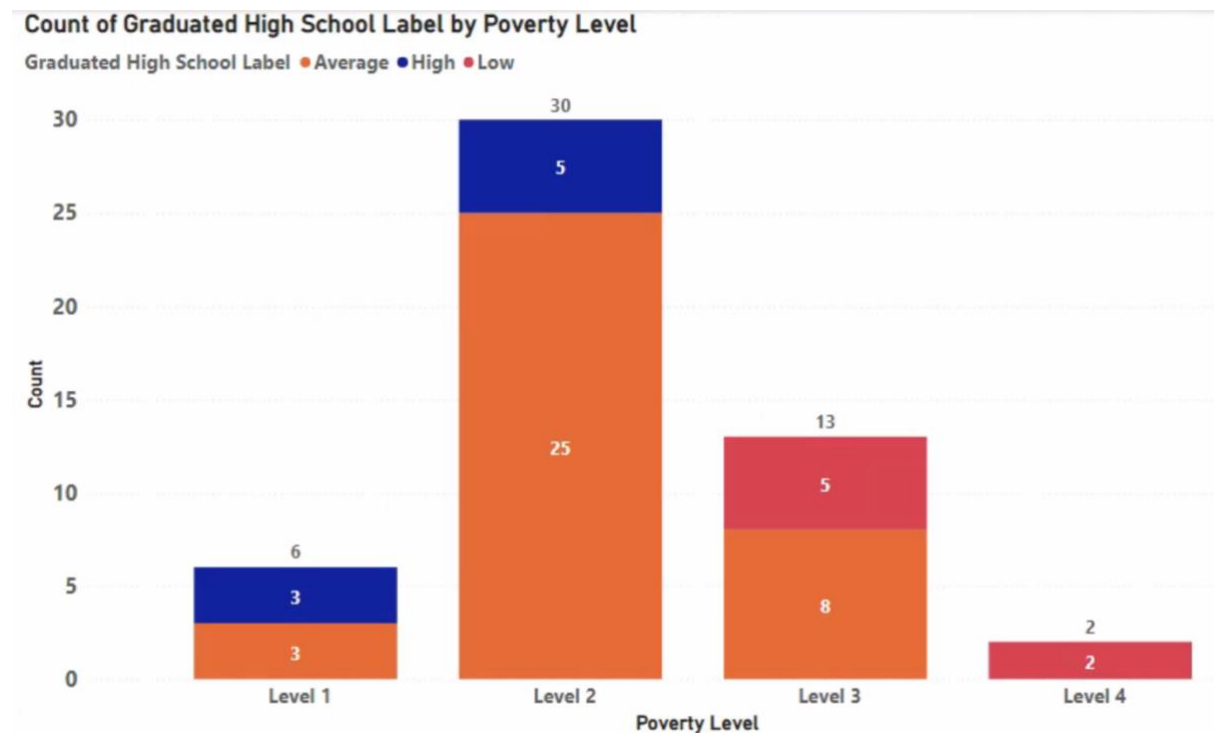
Decision Criteria 2:
## Level of poverty, High School graduation and Unemployment in the State

Resultant array

	State	State Name	# Poverty	% Poverty	Med Household Income	% High School Graduate	Unemployment Rate	% Not Poverty	Poverty Level	Unemployment Label	Graduated High School Label
1	AL	Alabama	814197	17.20	46309.00	80.16	0.04	82.80	Level 3	Medium	Average
2	AK	Alaska	71916	9.90	76144.00	80.10	0.07	90.10	Level 1	High	Average
3	AR	Arizona	497388	17.20	44406.00	79.95	0.05	82.80	Level 3	High	Low
4	AZ	Arkansas	1107153	16.40	53481.00	79.22	0.04	83.60	Level 3	Medium	Low
5	CA	California	5527621	14.40	67715.00	80.82	0.04	85.60	Level 2	Medium	Average
6	CO	Colorado	598378	11.00	65718.00	88.93	0.03	89.00	Level 2	Medium	Average
7	CT	Connecticut	342171	9.90	73380.00	91.59	0.05	90.10	Level 1	High	High
8	DE	Delaware	109592	11.80	62112.00	88.52	0.05	88.20	Level 2	High	Average
9	DC	District of ...	119778	18.50	74093.00	89.30	0.06	81.50	Level 3	High	Average
10	FL	Florida	2986237	14.80	50857.00	85.46	0.04	85.20	Level 2	Medium	Average
11	GA	Georgia	1612368	16.10	53468.00	78.63	0.05	83.90	Level 3	High	Low
12	HI	Hawaii	132597	9.50	74659.00	91.67	0.02	90.50	Level 1	Low	High
13	ID	Idaho	228037	13.80	51647.00	84.42	0.03	86.20	Level 2	Medium	Average
14	IL	Illinois	1620974	13.00	60977.00	88.29	0.05	87.00	Level 2	High	Average
15	IN	Indiana	899168	14.00	52289.00	86.32	0.03	86.00	Level 2	Medium	Average
16	IA	Iowa	354429	11.70	56354.00	89.67	0.03	88.30	Level 2	Medium	Average
17	KS	Kansas	343773	12.20	54828.00	87.97	0.04	87.80	Level 2	Medium	Average
18	KY	Kentucky	782779	18.20	46610.00	82.22	0.04	81.80	Level 3	Medium	Average
19	LA	Louisiana	911970	20.10	45374.00	79.12	0.05	79.90	Level 4	High	Low
20	ME	Maine	159523	12.30	52926.00	91.43	0.03	87.70	Level 2	Medium	High
21	MD	Maryland	572786	9.70	78787.00	88.08	0.04	90.30	Level 1	Medium	Average
22	MA	Massach...	688366	10.50	75207.00	92.03	0.04	89.50	Level 2	Medium	High
23	MI	Michigan	1449683	14.90	52436.00	89.21	0.05	85.10	Level 2	High	Average
24	MN	Minnesota	531789	9.90	65583.00	89.47	0.03	90.10	Level 1	Medium	Average
25	MS	Mississippi	606873	21.00	41793.00	78.47	0.05	79.00	Level 4	High	Low
26	MO	Missouri	826358	14.00	51713.00	82.79	0.04	86.00	Level 2	Medium	Average
27	MT	Montana	136439	13.40	50265.00	89.99	0.04	86.60	Level 2	Medium	Average
28	NE	Nebraska	208864	11.30	56979.00	89.52	0.03	88.70	Level 2	Medium	Average
29	NV	Nevada	407308	14.10	55201.00	87.05	0.05	85.90	Level 2	High	Average
30	NH	New Ham...	97753	7.60	70986.00	90.71	0.03	92.40	Level 1	Medium	High
31	NJ	New Jersey	915390	10.40	76212.00	90.52	0.05	89.60	Level 2	High	High
32	NM	New Mexi...	390461	19.10	46844.00	78.97	0.06	80.90	Level 3	High	Low
33	NY	New York	2843954	14.80	62700.00	90.54	0.05	85.20	Level 2	High	High
34	NC	North Car...	1523034	15.40	50595.00	83.14	0.05	84.60	Level 3	High	Average
35	ND	North Da...	76951	10.50	61898.00	87.60	0.03	89.50	Level 2	Medium	Average
36	OH	Ohio	1639636	14.50	52357.00	88.20	0.05	85.50	Level 2	High	Average
37	OK	Oklahoma	615050	16.10	49204.00	82.46	0.04	83.90	Level 3	Medium	Average
38	OR	Oregon	538169	13.40	57379.00	87.60	0.04	86.60	Level 2	Medium	Average
39	PA	Pennsylv...	1589584	12.90	56897.00	88.97	0.05	87.10	Level 2	High	Average
40	RI	Rhode Isl...	134683	13.30	60046.00	88.83	0.05	86.70	Level 2	High	Average
41	SC	South Car...	739574	15.30	49587.00	80.65	0.04	84.70	Level 3	Medium	Average
42	SD	South Da...	107953	12.90	54926.00	86.18	0.03	87.10	Level 2	Medium	Average
43	TN	Tennessee	1023825	15.80	48506.00	81.63	0.03	84.20	Level 3	Medium	Average
44	TX	Texas	4261291	15.60	56583.00	74.09	0.04	84.40	Level 3	Medium	Low
45	UT	Utah	307270	10.20	65931.00	89.64	0.03	89.80	Level 2	Medium	Average
46	VT	Vermont	67825	11.30	57661.00	89.98	0.03	88.70	Level 2	Medium	Average
47	VA	Virginia	897244	11.00	68127.00	84.88	0.04	89.00	Level 2	Medium	Average
48	WA	Washington	808582	11.30	67064.00	87.07	0.05	88.70	Level 2	High	Average
49	WV	West Virgi...	318368	17.90	43175.00	82.14	0.05	82.10	Level 3	High	Average
50	WI	Wisconsin	661465	11.80	56808.00	90.26	0.03	88.20	Level 2	Medium	High
51	WY	Wyoming	62416	10.90	61686.00	83.97	0.04	89.10	Level 2	Medium	Average

Part 1

Count of Graduated High School Label by Poverty Level

Graduated High School Label ● Average ● High ● Low

Based on the above graph, I prefer to live in a state with a low poverty rate. However, there are only 6 states with a low poverty rate, and I am specifically interested in those with a high school graduation rate above the median. As a result, my options have been narrowed down to 6 states through this criterion.

Percentage of Unemployment Label by Poverty Level

Unemployment Label ● High ● Low ● Medium
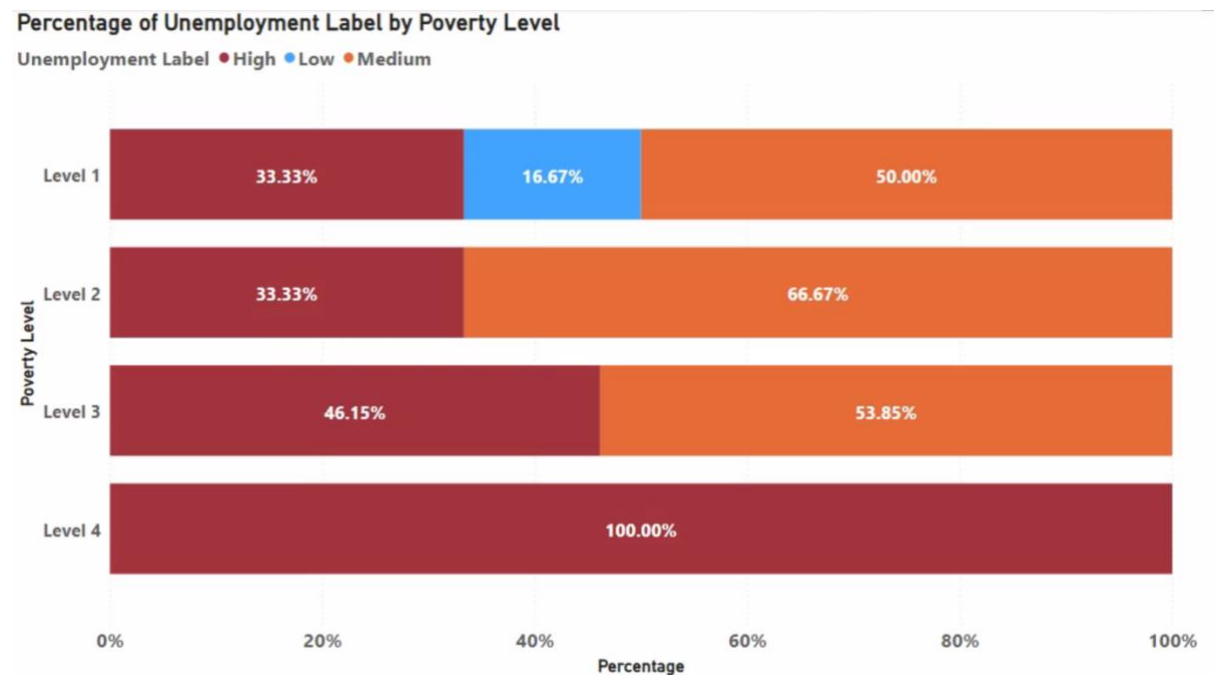
Based on the above graph, it can see that the group of states with a low poverty rate has the lowest unemployment rate among all the groups. This satisfies my decision criteria.

Part 2
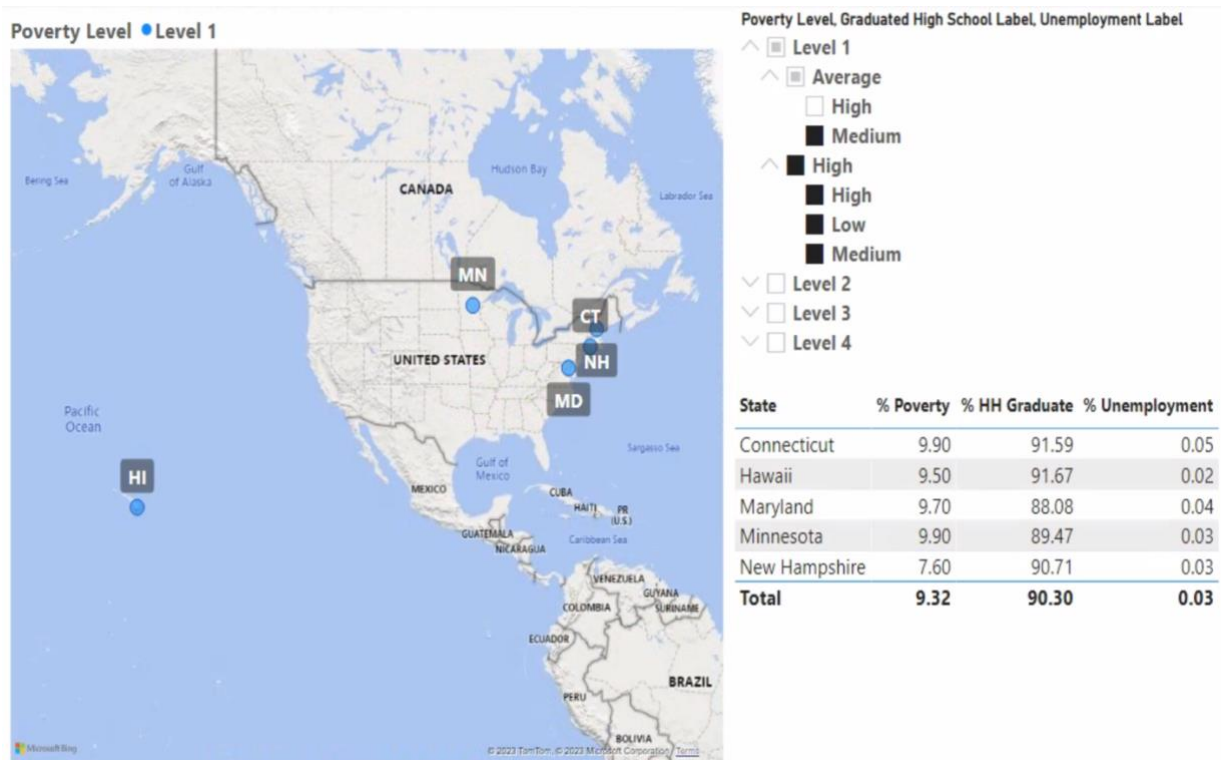
The above graph shows the specific states that meet my decision-making criteria based on poverty rate, high school graduation rate, and unemployment rate. These criteria include states with low poverty rates, high school graduation rates at or above the median, and unemployment rates below 5%. The graph shows five states that meet these criteria, which are Connecticut, Hawaii, Maryland, Minnesota, and New Hampshire.

"Ultimately, based on the Part 1 graph, it can show that there is a correlation between poverty rates and high school graduation rates. The group with lower poverty rates is distributed among groups with higher or at least average high school graduation rates, while the group with higher poverty rates is distributed among groups with lower high school graduation rates. Additionally, it can show that there is also a correlation between poverty rates and unemployment rates. This is because in groups with extremely high poverty rates, only groups with very high unemployment rates are distributed."

Furthermore, through Part 2, the states that meet my final decision-making criteria are **Connecticut**, **Hawaii**, **Maryland**, **Minnesota**, and **New Hampshire**. The average poverty rate of these five states is 9.32, and the average graduation rate is 90.30, which is high, while the average unemployment rate is 0.03, which is low, indicating that they meet my decision-making criteria.

Decision Criteria 3: Level of retires & Over 65 in the State

Resultant array

	State	State Name	State Population	# Retirees	# Over 65 Female	# Over 65 Male	# Total Over 65	% Total Over 65	% Retirees	Retirees Label	Over 65 Label
1	AL	Alabama	1060625	593250	275764	371595	647359	0.61	0.56	Less distribution	Less 65 %
2	AK	Alaska	84875	54559	27824	27761	55585	0.65	0.64	Normal distribution	65 ~ 69.9 %
3	AR	Arizona	1141080	784817	373723	446928	820651	0.72	0.69	Large distribution	Over 70 %
4	AZ	Arkansas	657754	379402	179087	231266	410353	0.62	0.58	Less distribution	Less 65 %
5	CA	California	5280104	3549028	1728672	2111223	3839895	0.73	0.67	Large distribution	Over 70 %
6	CO	Colorado	748595	510098	245274	294751	540025	0.72	0.68	Large distribution	Over 70 %
7	CT	Connecticut	640252	453319	207899	276497	484396	0.76	0.71	Very large distrib...	Over 70 %
8	DE	Delaware	182065	124666	57128	72641	129769	0.71	0.68	Large distribution	Over 70 %
9	DC	District of ...	77277	50090	22331	31266	53597	0.69	0.65	Large distribution	65 ~ 69.9 %
10	FL	Florida	4004631	2783356	1316543	1622879	2939422	0.73	0.70	Very large distrib...	Over 70 %
11	GA	Georgia	1582070	993356	442958	588487	1031445	0.65	0.63	Normal distribution	65 ~ 69.9 %
12	HI	Hawaii	240456	178594	81317	102769	184086	0.77	0.74	Very large distrib...	Over 70 %
13	ID	Idaho	288285	191857	93383	107919	201302	0.70	0.67	Large distribution	Over 70 %
14	IL	Illinois	2102955	1399029	653483	860214	1513697	0.72	0.67	Large distribution	Over 70 %
15	IN	Indiana	1244610	794377	361623	482539	844162	0.68	0.64	Normal distribution	65 ~ 69.9 %
16	IA	Iowa	600699	413055	191607	253436	445043	0.74	0.69	Large distribution	Over 70 %
17	KS	Kansas	507529	337197	156689	205483	362172	0.71	0.66	Large distribution	Over 70 %
18	KY	Kentucky	930153	503830	246274	318327	564601	0.61	0.54	Less distribution	Less 65 %
19	LA	Louisiana	826385	440231	228607	295813	524420	0.63	0.53	Less distribution	Less 65 %
20	ME	Maine	1185319	772056	361219	480627	841846	0.71	0.65	Large distribution	Over 70 %
21	MD	Maryland	895225	609720	277811	372102	649913	0.73	0.68	Large distribution	Over 70 %
22	MA	Massach...	314392	197320	95009	116899	211908	0.67	0.63	Normal distribution	65 ~ 69.9 %
23	MI	Michigan	2061941	1297959	598952	774256	1373208	0.67	0.63	Normal distribution	65 ~ 69.9 %
24	MN	Minnesota	927488	642820	298938	379157	678095	0.73	0.69	Large distribution	Over 70 %
25	MS	Mississippi	621969	348425	159643	215805	375448	0.60	0.56	Less distribution	Less 65 %
26	MO	Missouri	1212560	759607	353284	459707	812991	0.67	0.63	Normal distribution	65 ~ 69.9 %
27	MT	Montana	203292	137824	67981	77347	145328	0.71	0.68	Large distribution	Over 70 %
28	NE	Nebraska	317489	216593	101770	134088	235858	0.74	0.68	Large distribution	Over 70 %
29	NV	Nevada	442298	309668	152249	164384	316633	0.72	0.70	Very large distrib...	Over 70 %
30	NH	New Ham...	271189	178404	83360	102856	186216	0.69	0.66	Large distribution	65 ~ 69.9 %
31	NJ	New Jersey	1525539	1059903	478234	654222	1132456	0.74	0.69	Large distribution	Over 70 %
32	NM	New Mexi...	382365	240337	117335	140993	258328	0.68	0.63	Normal distribution	65 ~ 69.9 %
33	NY	New York	3394475	2242732	1023114	1388405	2411519	0.71	0.66	Large distribution	Over 70 %
34	NC	North Car...	1859584	1209099	532591	713335	1245926	0.67	0.65	Large distribution	65 ~ 69.9 %
35	ND	North Da...	122104	81397	40543	52105	92648	0.76	0.67	Large distribution	Over 70 %
36	OH	Ohio	2204313	1379221	667037	870325	1537362	0.70	0.63	Normal distribution	Over 70 %
37	OK	Oklahoma	730060	451199	214365	277175	491540	0.67	0.62	Normal distribution	65 ~ 69.9 %
38	OR	Oregon	757029	523412	245306	299241	544547	0.72	0.69	Large distribution	Over 70 %
39	PA	Pennsylv...	2660380	1739572	802008	1092308	1894316	0.71	0.65	Large distribution	Over 70 %
40	RI	Rhode Isl...	210975	140013	62196	85549	147745	0.70	0.66	Large distribution	Over 70 %
41	SC	South Car...	986228	629017	282908	367322	650230	0.66	0.64	Normal distribution	65 ~ 69.9 %
42	SD	South Da...	159453	110409	53754	65631	119385	0.75	0.69	Large distribution	Over 70 %
43	TN	Tennessee	1322096	806361	371767	487502	859269	0.65	0.61	Normal distribution	65 ~ 69.9 %
44	TX	Texas	3657907	2245376	1118740	1386947	2505687	0.69	0.61	Normal distribution	65 ~ 69.9 %
45	UT	Utah	346961	228077	111160	133747	244907	0.71	0.66	Large distribution	Over 70 %
46	VT	Vermont	1353738	887668	409529	540214	949743	0.70	0.66	Large distribution	Over 70 %
47	VA	Virginia	135597	89351	42377	51918	94295	0.70	0.66	Large distribution	Over 70 %
48	WA	Washington	1164430	785190	375196	457038	832234	0.71	0.67	Large distribution	Over 70 %
49	WV	West Virgi...	455850	243493	125615	159955	285570	0.63	0.53	Less distribution	Less 65 %
50	WI	Wisconsin	1110160	758614	346787	443151	789938	0.71	0.68	Large distribution	Over 70 %
51	WY	Wyoming	96294	66192	32446	37072	69518	0.72	0.69	Large distribution	Over 70 %

Part 1

Percentage of the population over 65 years

21.68M
(56.21%)

16.89M
(43.79%)

● # Over 65 Female
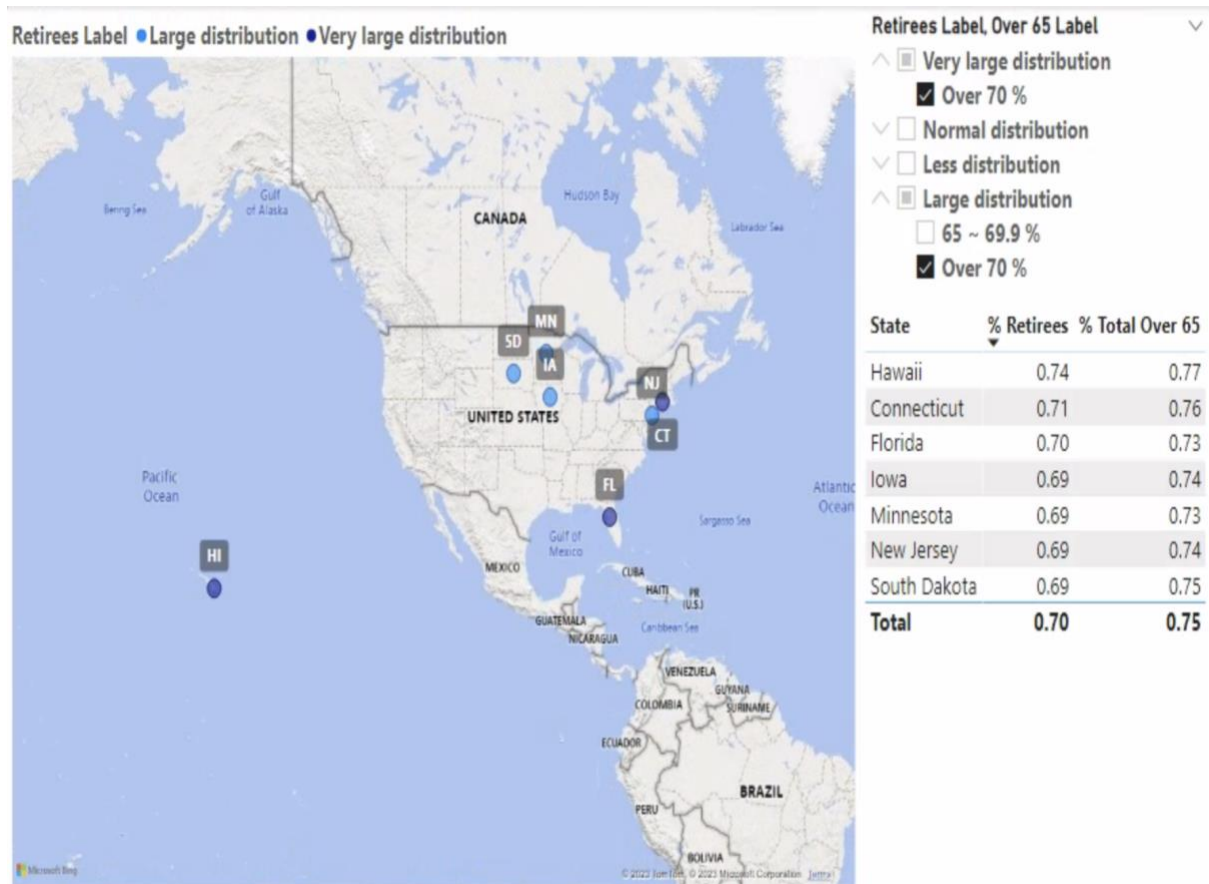● # Over 65 Male
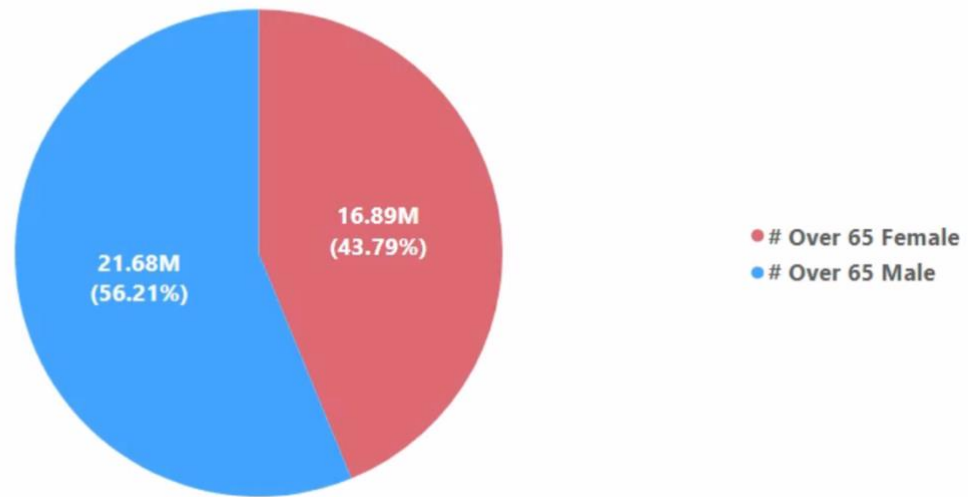
Count of Over 65 Label by Retirees Label

Over 65 Label ● Over 70 % ● Less 65 % ● 65 ~ 69.9 %
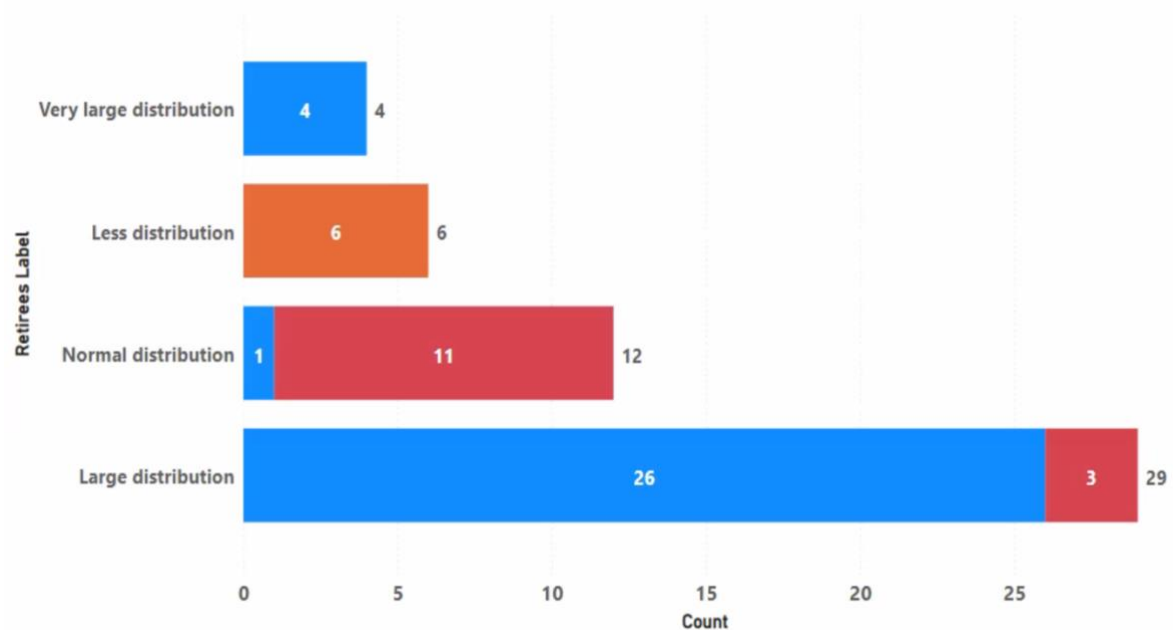
Based on the graphs above, we can see that the percentage of males aged 65 and over is 56.21%, while females make up 43.79%, indicating that there are more males than females in this age group. Additionally, I want to live in a state with a high retirement rate, and there are a total of 33 states with high retirement rates. However, since I specifically want to live in a state where the population aged 65 and over is high, my options are narrowed down to 30 states.

Part 2

Retirees Label ● Large distribution ● Very large distribution

State	% Retirees	% Total Over 65
Hawaii	0.74	0.77
Connecticut	0.71	0.76
Florida	0.70	0.73
Iowa	0.69	0.74
Minnesota	0.69	0.73
New Jersey	0.69	0.74
South Dakota	0.69	0.75
Total	**0.70**	**0.75**

The above graph shows the detailed states that meet the decision criteria based on retirement rate and the distribution rate of people aged 65 and over. The criteria show 7 states with a high retirement rate (more or equal then 0.69) and a distribution rate of 65 and over of 70% (more or equal then 0.73). These 7 states are Hawaii, Connecticut, Florida, Lowa, Minnesota, New Jersey, and South Dakota.

Ultimately, based on Part 1 graph, It can show that there is a correlation between retirement rate and the distribution rate of people aged 65 and over. This is because the group with a high retirement rate is distributed to a group with a high distribution rate of people aged 65 and over, and the group with a low retirement rate is distributed to a group with a low distribution rate of people aged 65 and over.

Furthermore, based on Part 2, the five states that meet my decision criteria are **Hawaii**, **Connecticut**, **Florida**, **Lowa**, and **Minnesota**. The average retirement rate for these five states is 0.70, which is high, and the average distribution rate of people aged 65 and over is 0.75, which is also high, satisfying my decision criteria.

Decision Criteria 4: GDP growth, and Level of new job in the State

Resultant array

	State	State Name	# New Biz	# New Job Biz	GDP Growth	GDP Group	New Job Level
1	AL	Alabama	2512	12647	0.03	Moderate	Normal
2	AK	Alaska	456	1559	0.02	Slow	Poor
3	AR	Arizona	4300	18042	0.03	Moderate	Normal
4	AZ	Arkansas	1962	8564	0.02	Slow	Poor
5	CA	California	47250	135472	0.03	Moderate	Excellent
6	CO	Colorado	5898	17847	0.04	Moderate	Normal
7	CT	Connecticut	2103	7181	0.04	Moderate	Poor
8	DE	Delaware	839	2740	0.06	Fast	Poor
9	DC	District of Columbia	914	4387	0.02	Slow	Poor
10	FL	Florida	20880	88109	0.03	Moderate	Excellent
11	GA	Georgia	7830	34863	0.03	Moderate	Great
12	HI	Hawaii	830	4310	0.01	Slow	Poor
13	ID	Idaho	1793	5641	0.03	Moderate	Poor
14	IL	Illinois	7597	31194	0.04	Moderate	Great
15	IN	Indiana	3189	12739	0.03	Moderate	Normal
16	IA	Iowa	1892	7238	0.02	Slow	Poor
17	KS	Kansas	2054	7439	0.02	Slow	Poor
18	KY	Kentucky	2673	12229	0.02	Slow	Normal
19	LA	Louisiana	2321	10862	0.01	Slow	Normal
20	ME	Maine	1077	2879	0.03	Moderate	Poor
21	MD	Maryland	3703	12809	0.03	Moderate	Normal
22	MA	Massachusetts	5537	15966	0.04	Moderate	Normal
23	MI	Michigan	4577	18517	0.04	Moderate	Normal
24	MN	Minnesota	2998	12603	0.02	Slow	Normal
25	MS	Mississippi	1447	6954	0.03	Moderate	Poor
26	MO	Missouri	3700	12189	0.04	Moderate	Normal
27	MT	Montana	979	2680	0.02	Slow	Poor
28	NE	Nebraska	1554	4763	0.02	Slow	Poor
29	NV	Nevada	2429	9034	0.03	Moderate	Poor
30	NH	New Hampshire	1179	3755	0.04	Moderate	Poor
31	NJ	New Jersey	6199	25490	0.03	Moderate	Normal
32	NM	New Mexico	1333	4502	0.02	Slow	Poor
33	NY	New York	14417	50848	0.04	Moderate	Excellent
34	NC	North Carolina	6878	25006	0.03	Moderate	Normal
35	ND	North Dakota	667	2923	0.02	Slow	Poor
36	OH	Ohio	5334	20911	0.04	Moderate	Normal
37	OK	Oklahoma	2354	10406	0.03	Moderate	Normal
38	OR	Oregon	3339	11480	0.04	Moderate	Normal
39	PA	Pennsylvania	7298	25858	0.03	Moderate	Normal
40	RI	Rhode Island	902	2152	0.03	Moderate	Poor
41	SC	South Carolina	2769	12127	0.03	Moderate	Normal
42	SD	South Dakota	575	1918	0.01	Slow	Poor
43	TN	Tennessee	3677	15389	0.03	Moderate	Normal
44	TX	Texas	18499	80792	0.05	Fast	Excellent
45	UT	Utah	2994	10256	0.04	Moderate	Normal
46	VT	Vermont	545	1526	0.03	Moderate	Poor
47	VA	Virginia	4980	18847	0.02	Slow	Normal
48	WA	Washington	4636	15750	0.04	Moderate	Normal
49	WV	West Virginia	888	3788	0.03	Moderate	Poor
50	WI	Wisconsin	3927	12397	0.03	Moderate	Normal
51	WY	Wyoming	632	1691	0.02	Slow	Poor

Part 1

Count of New Job Level by GDP Group

New Job Level ●Excellent ●Great ●Normal ●Poor
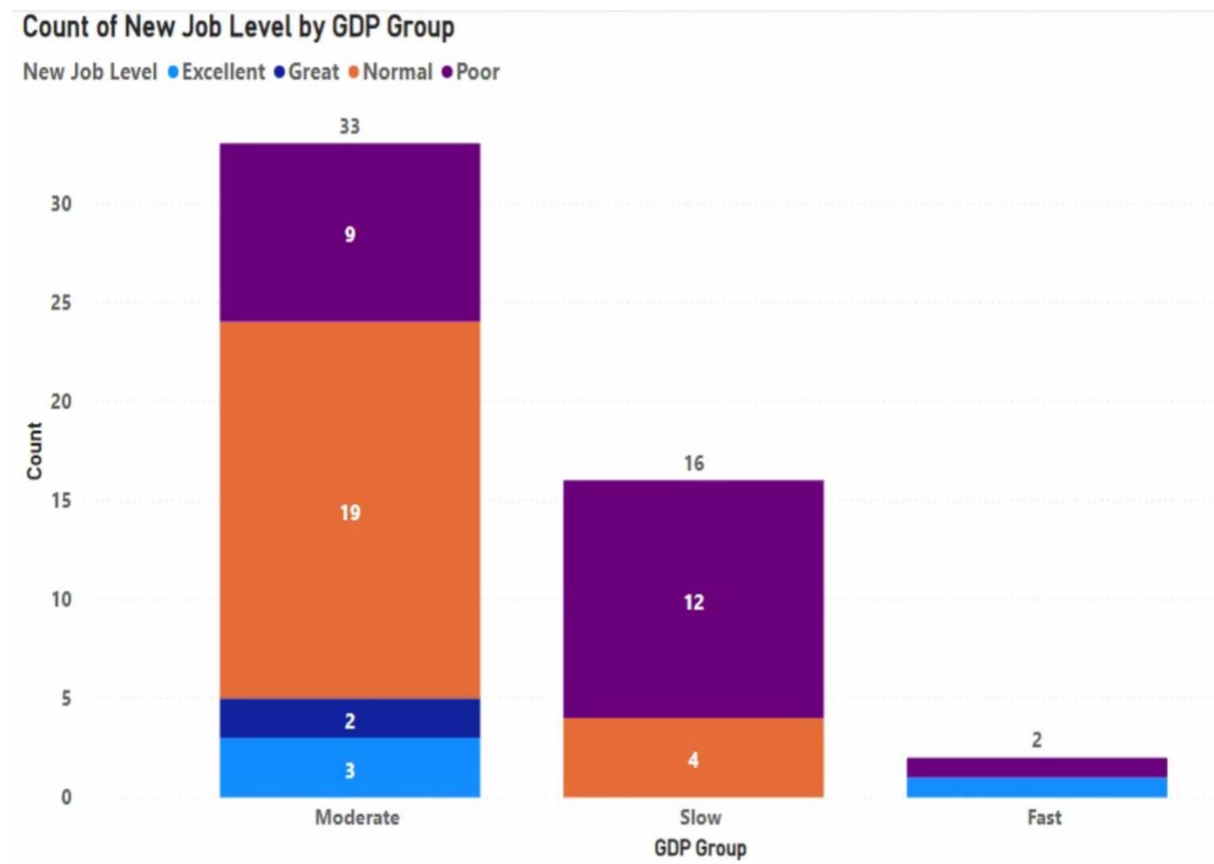
Based on the above graph, I want to live in a state where the GDP growth rate is above average. There are a total of 35 states with a GDP growth rate above average, and I want to live in a state with plenty of new job opportunities (Excellent or Great). As a result, my options are narrowed down to 6 states.

Part 2
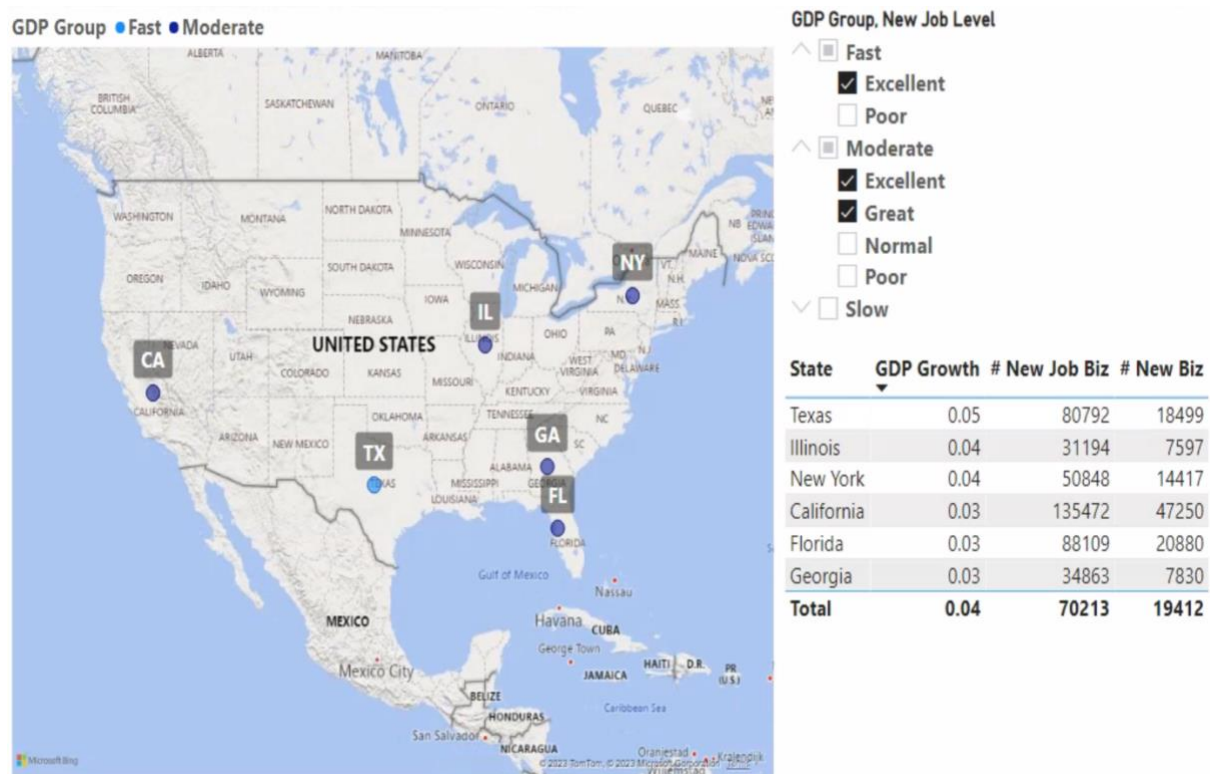
The above graph shows detailed states that meet the decision criteria based on GDP growth rate and new job creation. The criteria indicate states with above-average GDP growth rate and a high number of new jobs, totaling 6 states: Texas, Illinois, New York, California, Florida, and Georgia.

Ultimately, based on the graph in Part 1, It can show that there is no correlation between GDP growth rate and new job creation. This is because the groups of GDP growth rate and new job creation are evenly distributed.

Furthermore, through Part 2, the states that meet my decision criteria are **Texas**, **Illinois**, **New York**, **California**, and **Florida**. The average GDP growth rate for these five states is 0.04, which is high, and the average number of new jobs is 70,213, indicating that they meet my decision criteria.

Decision Criteria 5: Economic growth in the State

Resultant array

	State	State Name	# Small Biz	% Emp by Small Biz	% Manufacturing Emp	% Prof Service Emp	% Mining Emp	GDP Growth	# Business Level	GDP Group
1	AL	Alabama	392939	0.47	0.34	0.62	0.34	0.03	Between 100K and 499K	Moderate
2	AK	Alaska	71841	0.53	0.35	0.59	0.15	0.02	Between 50K and 99K	Slow
3	AR	Arizona	553779	0.44	0.46	0.56	0.14	0.03	Between 500K and 999K	Moderate
4	AZ	Arkansas	247018	0.48	0.26	0.71	0.47	0.02	Between 100K and 499K	Slow
5	CA	California	3941201	0.49	0.53	0.55	0.35	0.03	More or equal than 1000K	Moderate
6	CO	Colorado	611495	0.49	0.52	0.57	0.44	0.04	Between 500K and 999K	Moderate
7	CT	Connecticut	342443	0.49	0.50	0.51	0.39	0.04	Between 100K and 499K	Moderate
8	DE	Delaware	79417	0.45	0.34	0.53	0.86	0.06	Between 50K and 99K	Fast
9	DC	District of Columbia	72837	0.47	0.77	0.46	0.00	0.02	Between 50K and 99K	Slow
10	FL	Florida	2471260	0.42	0.54	0.67	0.43	0.03	More or equal than 1000K	Moderate
11	GA	Georgia	1041515	0.43	0.34	0.58	0.44	0.03	More or equal than 1000K	Moderate
12	HI	Hawaii	128863	0.52	0.79	0.74	1.00	0.01	Between 100K and 499K	Slow
13	ID	Idaho	158426	0.56	0.47	0.60	0.52	0.03	Between 100K and 499K	Moderate
14	IL	Illinois	1219654	0.45	0.49	0.54	0.58	0.04	More or equal than 1000K	Moderate
15	IN	Indiana	508924	0.45	0.37	0.64	0.33	0.03	Between 500K and 999K	Moderate
16	IA	Iowa	267733	0.48	0.32	0.65	0.70	0.02	Between 100K and 499K	Slow
17	KS	Kansas	251985	0.51	0.36	0.66	0.70	0.02	Between 100K and 499K	Slow
18	KY	Kentucky	347159	0.44	0.32	0.67	0.49	0.02	Between 100K and 499K	Slow
19	LA	Louisiana	437437	0.53	0.43	0.66	0.39	0.01	Between 100K and 499K	Slow
20	ME	Maine	145536	0.57	0.49	0.77	0.88	0.03	Between 100K and 499K	Moderate
21	MD	Maryland	581712	0.50	0.47	0.53	0.65	0.03	Between 500K and 999K	Moderate
22	MA	Massachusetts	652661	0.46	0.54	0.55	0.76	0.04	Between 500K and 999K	Moderate
23	MI	Michigan	870301	0.49	0.46	0.54	0.50	0.04	Between 500K and 999K	Moderate
24	MN	Minnesota	513118	0.48	0.46	0.52	0.20	0.02	Between 500K and 999K	Slow
25	MS	Mississippi	254598	0.47	0.30	0.77	0.57	0.03	Between 100K and 499K	Moderate
26	MO	Missouri	523459	0.47	0.39	0.52	0.62	0.04	Between 500K and 999K	Moderate
27	MT	Montana	118315	0.65	0.74	0.77	0.34	0.02	Between 100K and 499K	Slow
28	NE	Nebraska	172958	0.47	0.32	0.27	0.73	0.02	Between 100K and 499K	Slow
29	NV	Nevada	254337	0.42	0.57	0.68	0.32	0.03	Between 100K and 499K	Moderate
30	NH	New Hampshire	133676	0.51	0.43	0.71	0.93	0.04	Between 100K and 499K	Moderate
31	NJ	New Jersey	861373	0.50	0.62	0.58	0.42	0.03	Between 500K and 999K	Moderate
32	NM	New Mexico	154257	0.54	0.57	0.00	0.00	0.02	Between 100K and 499K	Slow
33	NY	New York	2143667	0.50	0.59	0.56	0.67	0.04	More or equal than 1000K	Moderate
34	NC	North Carolina	890398	0.44	0.36	0.57	0.50	0.03	Between 500K and 999K	Moderate
35	ND	North Dakota	72723	0.58	0.47	0.73	0.31	0.02	Between 50K and 99K	Slow
36	OH	Ohio	944797	0.46	0.45	0.63	0.48	0.04	Between 500K and 999K	Moderate
37	OK	Oklahoma	347165	0.52	0.42	0.71	0.42	0.03	Between 100K and 499K	Moderate
38	OR	Oregon	368308	0.55	0.52	0.66	0.63	0.04	Between 100K and 499K	Moderate
39	PA	Pennsylvania	1037737	0.47	0.48	0.61	0.37	0.03	More or equal than 1000K	Moderate
40	RI	Rhode Island	99821	0.53	0.65	0.66	0.76	0.03	Between 50K and 99K	Moderate
41	SC	South Carolina	406536	0.47	0.33	0.64	0.46	0.03	Between 100K and 499K	Moderate
42	SD	South Dakota	85252	0.59	0.43	0.81	0.55	0.01	Between 50K and 99K	Slow
43	TN	Tennessee	589546	0.43	0.33	0.59	0.66	0.03	Between 500K and 999K	Moderate
44	TX	Texas	2627724	0.46	0.43	0.59	0.40	0.05	More or equal than 1000K	Fast
45	UT	Utah	277140	0.46	0.43	0.55	0.36	0.04	Between 100K and 499K	Moderate
46	VT	Vermont	77683	0.59	0.52	0.54	0.47	0.03	Between 50K and 99K	Moderate
47	VA	Virginia	723962	0.47	0.35	0.50	0.39	0.02	Between 500K and 999K	Slow
48	WA	Washington	590908	0.51	0.43	0.64	0.41	0.04	Between 500K and 999K	Moderate
49	WV	West Virginia	114391	0.50	0.39	0.71	0.24	0.03	Between 100K and 499K	Moderate
50	WI	Wisconsin	448032	0.50	0.46	0.70	0.63	0.03	Between 100K and 499K	Moderate
51	WY	Wyoming	65462	0.63	0.52	0.90	0.31	0.02	Between 50K and 99K	Slow

Part 1

Percentage of industries by Business Level

● % Prof Service Emp ● % Manufacturing Emp ● % Exporters Emp ● % Mining Emp
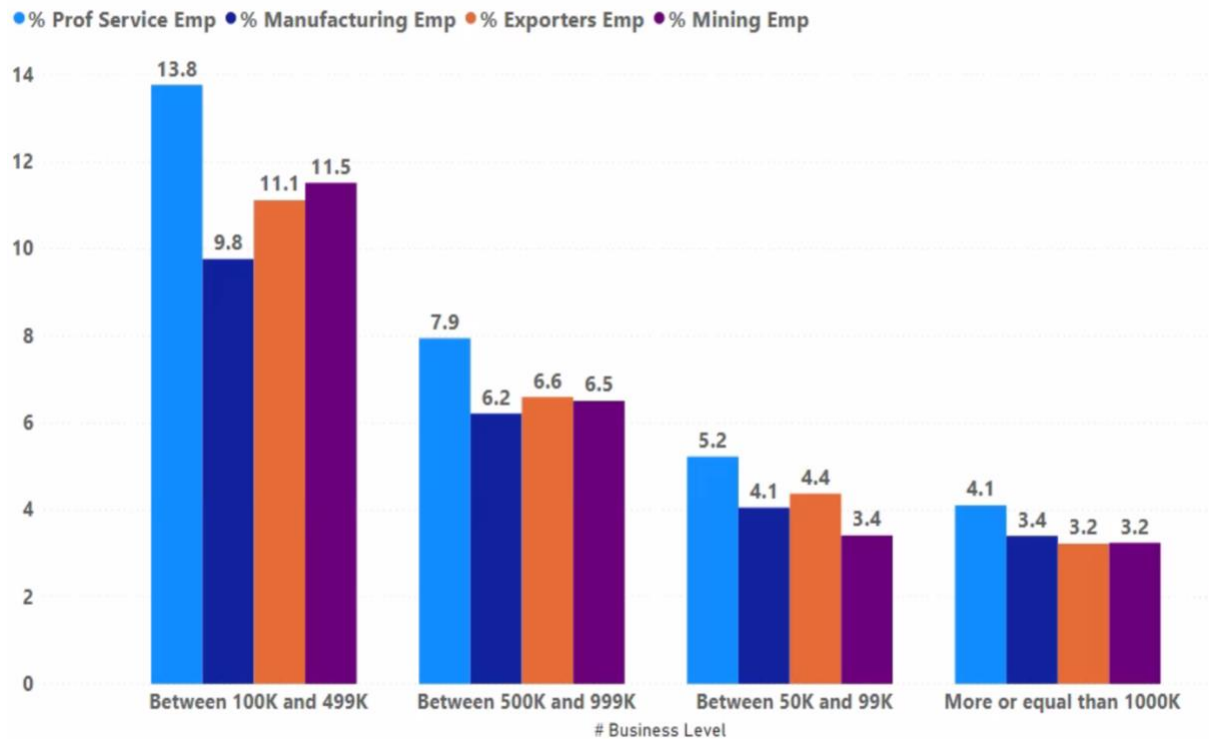
Based on the above graph, I want to live in a state with a high number of small businesses. However, the group with small businesses of 1,000,000 or more has the lowest distribution than the other groups, so my options are narrowed down.

Part 2
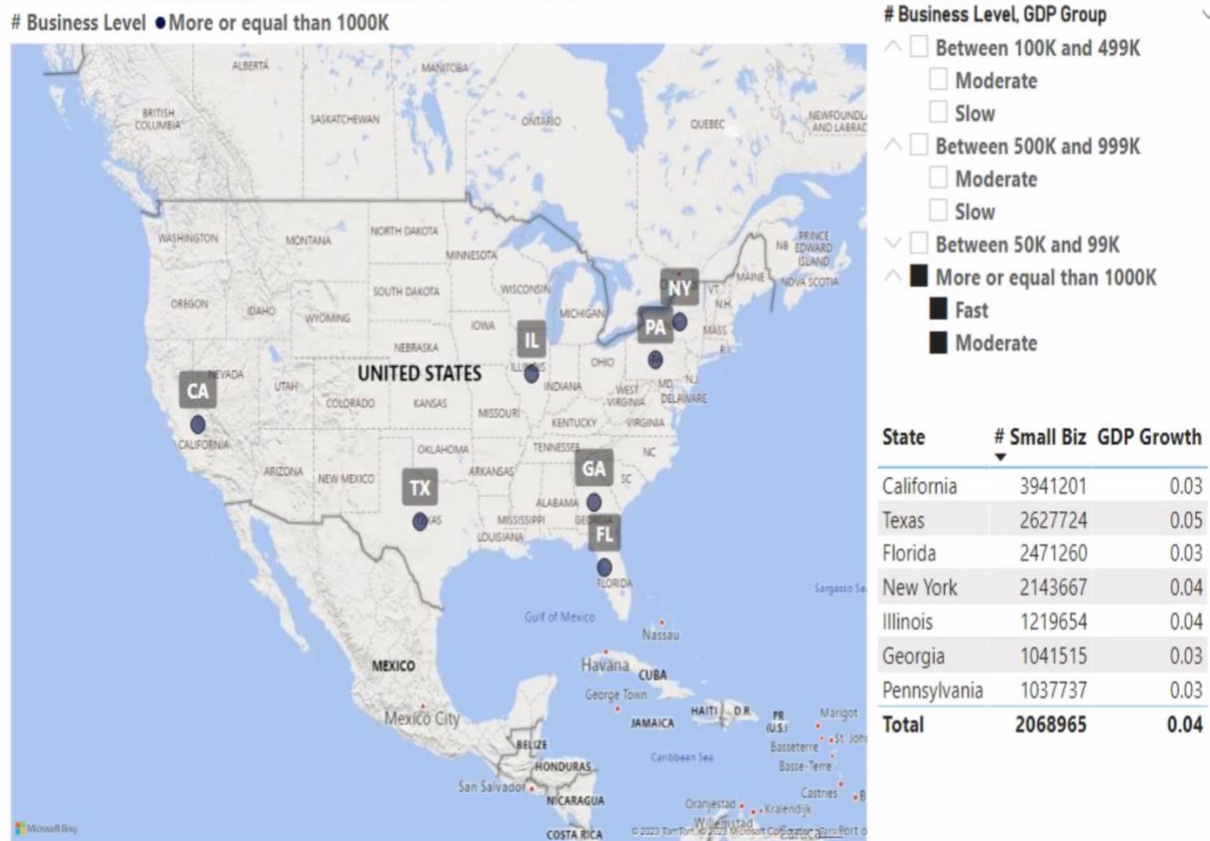
The above graph shows the detailed states that meet the decision-making criteria based on the number of businesses and GDP growth rate. This criterion shows 7 states with over 1,000,000 businesses and above-average GDP growth rates. The 7 states are California, Texas, Florida, New York, Illinois, Georgia, and Pennsylvania.

Ultimately, based on the graph in Part 1, it can show that the group with 1,000,000 or more businesses has the lowest distribution. Additionally, it can show that the distribution of professional service employees is highest in the small business industry on average.

Furthermore, based on Part 2, the states that meet my decision-making criteria are **California**, **Texas**, **Florida**, **New York**, and **Illinois**. These five states have an average of 2,068,965 businesses, which is very high, and an above-average GDP growth rate of 0.04, satisfying my decision criteria.

Decision Criteria 6: Breweries & Wineries, and Median income of the State

Resultant array

	State	State Name	# Breweries	# Wineries	Med Income	Total BrewWine	BrewWine Group	Med Income Group
1	AL	Alabama	65	49	40577	114	Between 100 and 499	Medium
2	AK	Alaska	62	18	52099	80	Less than 100	Medium
3	AR	Arizona	59	35	35593	94	Less than 100	Low
4	AZ	Arkansas	161	133	42495	294	Between 100 and 499	Medium
5	CA	California	1393	5525	62097	6918	More or equal than 1000	High
6	CO	Colorado	543	231	58857	774	Between 500 and 999	Medium
7	CT	Connecticut	151	81	75149	232	Between 100 and 499	High
8	DE	Delaware	44	11	61792	55	Less than 100	High
9	DC	District of Columbia	16	9	70848	25	Less than 100	High
10	FL	Florida	476	178	49811	654	Between 500 and 999	Medium
11	GA	Georgia	164	115	39781	279	Between 100 and 499	Low
12	HI	Hawaii	43	17	64708	60	Less than 100	High
13	ID	Idaho	104	100	42484	204	Between 100 and 499	Medium
14	IL	Illinois	382	180	54052	562	Between 500 and 999	Medium
15	IN	Indiana	267	146	47713	413	Between 100 and 499	Medium
16	IA	Iowa	143	160	48116	303	Between 100 and 499	Medium
17	KS	Kansas	80	70	44838	150	Between 100 and 499	Medium
18	KY	Kentucky	108	118	45683	226	Between 100 and 499	Medium
19	LA	Louisiana	64	16	41635	80	Less than 100	Medium
20	ME	Maine	190	71	45397	261	Between 100 and 499	Medium
21	MD	Maryland	163	163	78126	326	Between 100 and 499	High
22	MA	Massachusetts	277	148	71765	425	Between 100 and 499	High
23	MI	Michigan	581	587	44685	1168	More or equal than 1000	Medium
24	MN	Minnesota	273	132	51678	405	Between 100 and 499	Medium
25	MS	Mississippi	23	11	35002	34	Less than 100	Low
26	MO	Missouri	199	288	41747	487	Between 100 and 499	Medium
27	MT	Montana	125	38	45119	163	Between 100 and 499	Medium
28	NE	Nebraska	68	39	46582	107	Between 100 and 499	Medium
29	NV	Nevada	66	18	57322	84	Less than 100	Medium
30	NH	New Hampshire	127	68	54026	195	Between 100 and 499	Medium
31	NJ	New Jersey	177	94	80584	271	Between 100 and 499	High
32	NM	New Mexico	147	104	40952	251	Between 100 and 499	Medium
33	NY	New York	631	684	69890	1315	More or equal than 1000	High
34	NC	North Carolina	458	244	43302	702	Between 500 and 999	Medium
35	ND	North Dakota	31	24	52141	55	Less than 100	Medium
36	OH	Ohio	449	430	50457	879	Between 500 and 999	Medium
37	OK	Oklahoma	77	103	40447	180	Between 100 and 499	Medium
38	OR	Oregon	412	817	48088	1229	More or equal than 1000	Medium
39	PA	Pennsylvania	571	461	51758	1032	More or equal than 1000	Medium
40	RI	Rhode Island	42	27	64537	69	Less than 100	High
41	SC	South Carolina	119	51	39787	170	Between 100 and 499	Low
42	SD	South Dakota	49	37	45408	86	Less than 100	Medium
43	TN	Tennessee	181	92	42249	273	Between 100 and 499	Medium
44	TX	Texas	485	791	51335	1276	More or equal than 1000	Medium
45	UT	Utah	54	18	60216	72	Less than 100	High
46	VT	Vermont	104	83	46284	187	Between 100 and 499	Medium
47	VA	Virginia	390	442	61867	832	Between 500 and 999	High
48	WA	Washington	601	1270	59315	1871	More or equal than 1000	Medium
49	WV	West Virginia	33	42	39097	75	Less than 100	Low
50	WI	Wisconsin	348	201	50411	549	Between 500 and 999	Medium
51	WY	Wyoming	51	11	60874	62	Less than 100	High

Part 1

Percentage of Breweries and Wineries by BrewWine Group

● # Breweries ● # Wineries

Distribution of Breweries & Wineries by Med Income Group

● # Breweries ● # Wineries
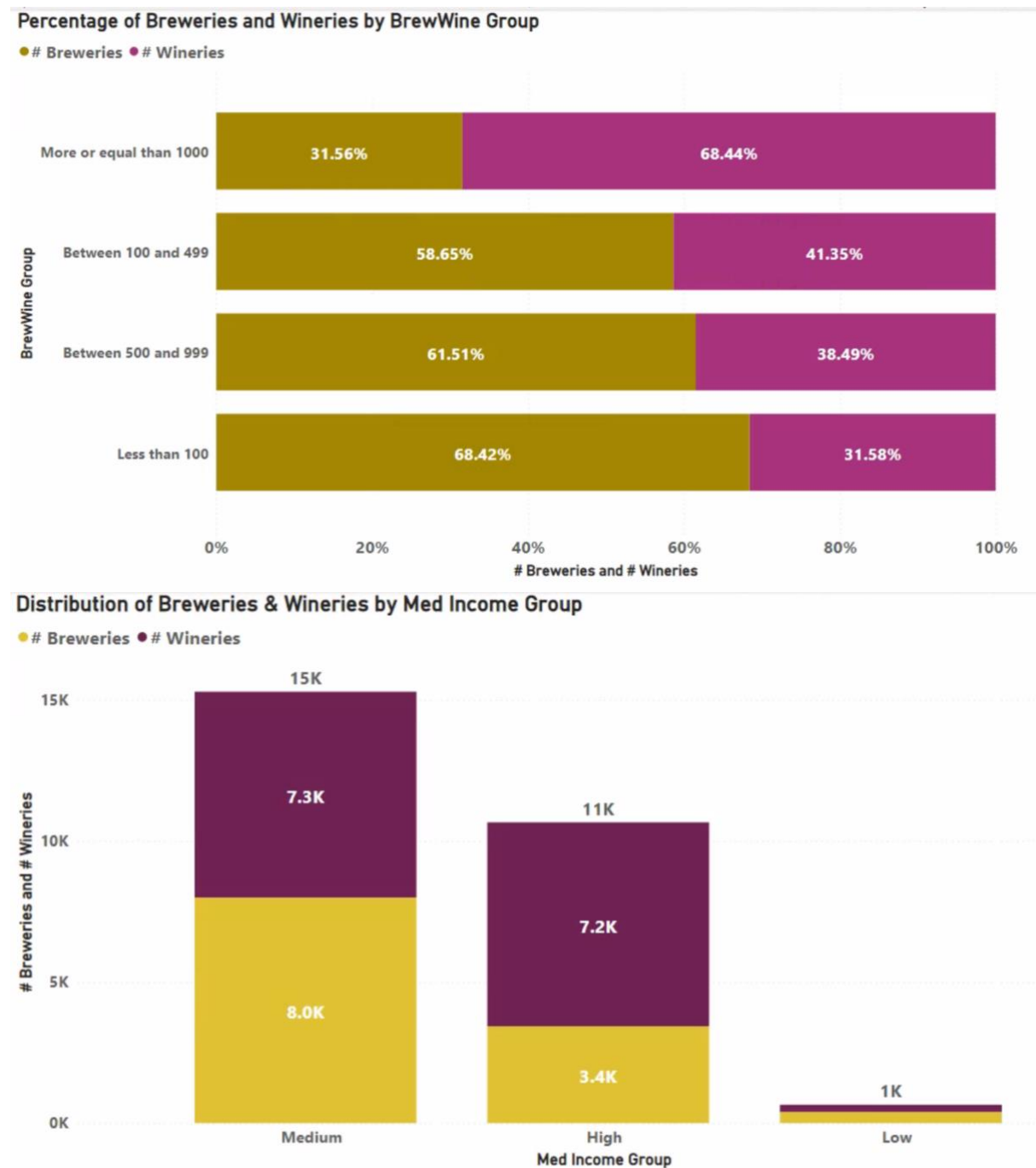
Through the above graphs, it can show that the proportion of wineries in the group with 1000 or more breweries is higher than that of breweries, and the proportion of wineries in the group with fewer breweries and wineries is lower than that of breweries. Moreover, I want to live in a state with many breweries and wineries and a median income above the national average. However, the group with low median income has very few breweries and wineries, which narrows down my options.

Part 2

BrewWine Group ● More or equal than 1000

BrewWine Group, Med Income Group

- ∨ ☐ Between 100 and 499
- ∨ ☐ Between 500 and 999
- ∨ ☐ Less than 100
- ∧ ■ More or equal than 1000
  - ■ High
  - ■ Medium

State	Med Income	# Breweries	# Wineries
California	62097	1393	5525
Michigan	44685	581	587
New York	69890	631	684
Oregon	48088	412	817
Pennsylvania	51758	571	461
Texas	51335	485	791
Washington	59315	601	1270
Total	**55310**	**668**	**1448**

The graph above shows the distribution of breweries and wineries, as well as the median income groups used as decision criteria for identifying specific states that meet the criteria. These criteria include states where breweries and wineries are distributed in more than 1,000 locations and the median income is above average, and seven states meet these criteria: California, Michigan, New York, Oregon, Pennsylvania, Texas, and Washington.

Ultimately, based on the Part 1, it can show that a correlation between the overall distribution of breweries and wineries and the proportion of wineries to breweries. Specifically, as the overall distribution of breweries and wineries increases, wineries are more likely to be more prevalent than breweries, and as the overall distribution decreases, breweries are more likely to be more prevalent than wineries. Additionally, there is a correlation between median income groups and the distribution of breweries and wineries. Specifically, breweries and wineries are more likely to be found in median income groups above the middle range, while they are less likely to be found in groups with lower median incomes.

Furthermore, based on Part 2, the final decision criteria for choosing states that meet the criteria are **California**, **Michigan**, **New York**, **Oregon**, and **Pennsylvania**. The median income of these five states is not low, with an average of $55,310, and the number of breweries and wineries is distributed well, with an average of 668 breweries and 1,448 wineries, satisfying my decision criteria.

Decision Criteria 7: Racial makeup & Level of new job in the State

Resultant array

	State	State Name	# New Job Biz	% White	% Black	% Native American	% Asian	% Hispanic	Asian Group	New Job Group
1	AL	Alabama	12647	72.51	23.32	0.66	0.48	2.98	Less than 1 %	Between 10000 and 29999
2	AK	Alaska	1559	45.26	0.56	45.48	1.38	2.13	1 % ~ 4.9 %	Less than 10000
3	AR	Arizona	18042	78.45	16.30	0.76	0.48	4.27	Less than 1 %	Between 10000 and 29999
4	AZ	Arkansas	8564	59.93	0.95	28.59	0.73	20.14	Less than 1 %	Less than 10000
5	CA	California	135472	71.54	2.68	1.72	5.54	29.51	5 % ~ 9.9 %	More or equal than 50000
6	CO	Colorado	17847	87.77	0.92	1.62	1.15	17.90	1 % ~ 4.9 %	Between 10000 and 29999
7	CT	Connecticut	7181	86.11	4.99	0.66	2.99	7.98	1 % ~ 4.9 %	Less than 10000
8	DE	Delaware	2740	76.25	15.39	0.52	2.00	7.42	1 % ~ 4.9 %	Less than 10000
9	DC	District of Columbia	4387	38.50	50.70	0.30	3.50	9.10	1 % ~ 4.9 %	Less than 10000
10	FL	Florida	88109	78.67	13.37	0.46	1.62	16.53	1 % ~ 4.9 %	More or equal than 50000
11	GA	Georgia	34863	62.59	30.63	0.30	1.49	6.42	1 % ~ 4.9 %	Between 30000 and 49999
12	HI	Hawaii	4310	33.37	1.07	0.39	25.65	10.36	More or equal than 10 %	Less than 10000
13	ID	Idaho	5641	88.82	0.30	2.52	0.49	10.70	Less than 1 %	Less than 10000
14	IL	Illinois	31194	90.36	4.70	0.26	1.34	5.17	1 % ~ 4.9 %	Between 30000 and 49999
15	IN	Indiana	12739	94.82	1.69	0.28	0.59	3.32	Less than 1 %	Between 10000 and 29999
16	IA	Iowa	7238	96.71	0.56	0.27	0.40	2.82	Less than 1 %	Less than 10000
17	KS	Kansas	7439	92.96	0.96	1.87	0.43	5.07	Less than 1 %	Less than 10000
18	KY	Kentucky	12229	92.23	4.42	0.21	0.71	2.23	Less than 1 %	Between 10000 and 29999
19	LA	Louisiana	10862	64.81	30.78	0.96	0.79	2.98	Less than 1 %	Between 10000 and 29999
20	ME	Maine	2879	95.69	0.82	0.55	1.03	1.31	1 % ~ 4.9 %	Less than 10000
21	MD	Maryland	12809	72.12	19.46	0.34	2.98	5.93	1 % ~ 4.9 %	Between 10000 and 29999
22	MA	Massachusetts	15966	89.30	2.79	0.27	2.84	4.93	1 % ~ 4.9 %	Between 10000 and 29999
23	MI	Michigan	18517	90.67	4.12	1.08	0.95	3.54	Less than 1 %	Between 10000 and 29999
24	MN	Minnesota	12603	91.80	1.00	3.36	1.03	3.15	1 % ~ 4.9 %	Between 10000 and 29999
25	MS	Mississippi	6954	53.80	41.83	1.61	0.55	2.32	Less than 1 %	Less than 10000
26	MO	Missouri	12189	90.18	5.86	0.54	0.55	2.36	Less than 1 %	Between 10000 and 29999
27	MT	Montana	2680	84.48	0.23	11.87	0.32	2.19	Less than 1 %	Less than 10000
28	NE	Nebraska	4763	94.72	0.42	1.56	0.29	4.07	Less than 1 %	Less than 10000
29	NV	Nevada	9034	82.33	1.57	5.58	2.01	13.17	1 % ~ 4.9 %	Less than 10000
30	NH	New Hampshire	3755	95.68	0.72	0.29	1.34	1.74	1 % ~ 4.9 %	Less than 10000
31	NJ	New Jersey	25490	80.89	6.98	0.26	5.94	11.12	5 % ~ 9.9 %	Between 10000 and 29999
32	NM	New Mexico	4502	65.42	0.67	15.34	0.49	45.43	Less than 1 %	Less than 10000
33	NY	New York	50848	88.88	4.01	0.36	2.72	6.63	1 % ~ 4.9 %	More or equal than 50000
34	NC	North Carolina	25006	71.52	20.40	1.79	0.93	6.41	Less than 1 %	Between 10000 and 29999
35	ND	North Dakota	2923	92.29	0.36	5.33	0.29	1.82	Less than 1 %	Less than 10000
36	OH	Ohio	20911	92.80	3.96	0.22	0.75	2.13	Less than 1 %	Between 10000 and 29999
37	OK	Oklahoma	10406	72.93	3.38	14.38	0.43	5.70	Less than 1 %	Between 10000 and 29999
38	OR	Oregon	11480	87.39	0.53	2.58	1.38	9.75	1 % ~ 4.9 %	Between 10000 and 29999
39	PA	Pennsylvania	25858	93.25	3.27	0.16	0.99	2.73	Less than 1 %	Between 10000 and 29999
40	RI	Rhode Island	2152	89.23	2.99	0.67	1.69	6.67	1 % ~ 4.9 %	Less than 10000
41	SC	South Carolina	12127	61.98	32.83	0.46	0.74	4.48	Less than 1 %	Between 10000 and 29999
42	SD	South Dakota	1918	84.82	0.29	12.03	0.32	2.04	Less than 1 %	Less than 10000
43	TN	Tennessee	15389	88.95	7.30	0.32	0.64	2.86	Less than 1 %	Between 10000 and 29999
44	TX	Texas	80792	82.40	5.87	0.66	1.01	39.28	1 % ~ 4.9 %	More or equal than 50000
45	UT	Utah	10256	89.44	0.38	3.87	0.77	7.66	Less than 1 %	Between 10000 and 29999
46	VT	Vermont	1526	95.87	0.77	0.37	0.91	1.38	Less than 1 %	Less than 10000
47	VA	Virginia	18847	74.60	16.51	0.34	3.67	6.15	1 % ~ 4.9 %	Between 10000 and 29999
48	WA	Washington	15750	82.38	1.43	3.75	3.07	10.61	1 % ~ 4.9 %	Between 10000 and 29999
49	WV	West Virginia	3788	95.04	2.92	0.20	0.34	0.90	Less than 1 %	Less than 10000
50	WI	Wisconsin	12397	92.96	0.94	2.62	0.79	3.32	Less than 1 %	Between 10000 and 29999
51	WY	Wyoming	1691	91.92	0.40	3.08	0.39	5.99	Less than 1 %	Less than 10000

Part 1

Percentage of races by New Job group
● % Asian ● % Black ● % Hispanic ● % Native American ● % White

New Job Group	% Asian	% Black	% Hispanic	% Native American	% White
Less than 10000		5.83%	7.42%	6.26%	78.34%
Between 10000 and 29999		8.98%	5.45%		82.41%
More or equal than 50000		5.72%	20.28%		70.90%
Between 30000 and 49999		17.38%	5.70%		75.25%
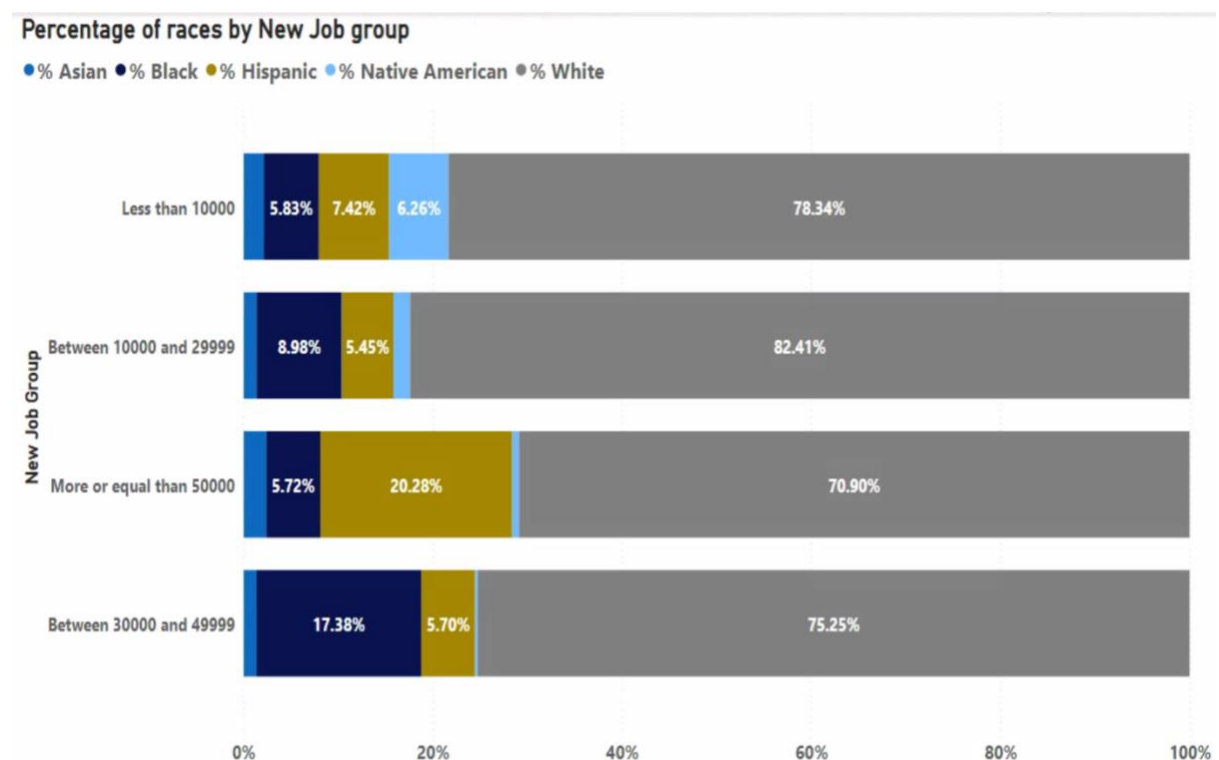
Based on the graphs above, I want to live in a state with a high proportion of Asians and abundant new job opportunities. However, since I noticed that in all the new job distribution groups, there are a lot of White people and very few Asians, it was difficult for me to understand the exact numbers and narrow down my choices.

Part 2
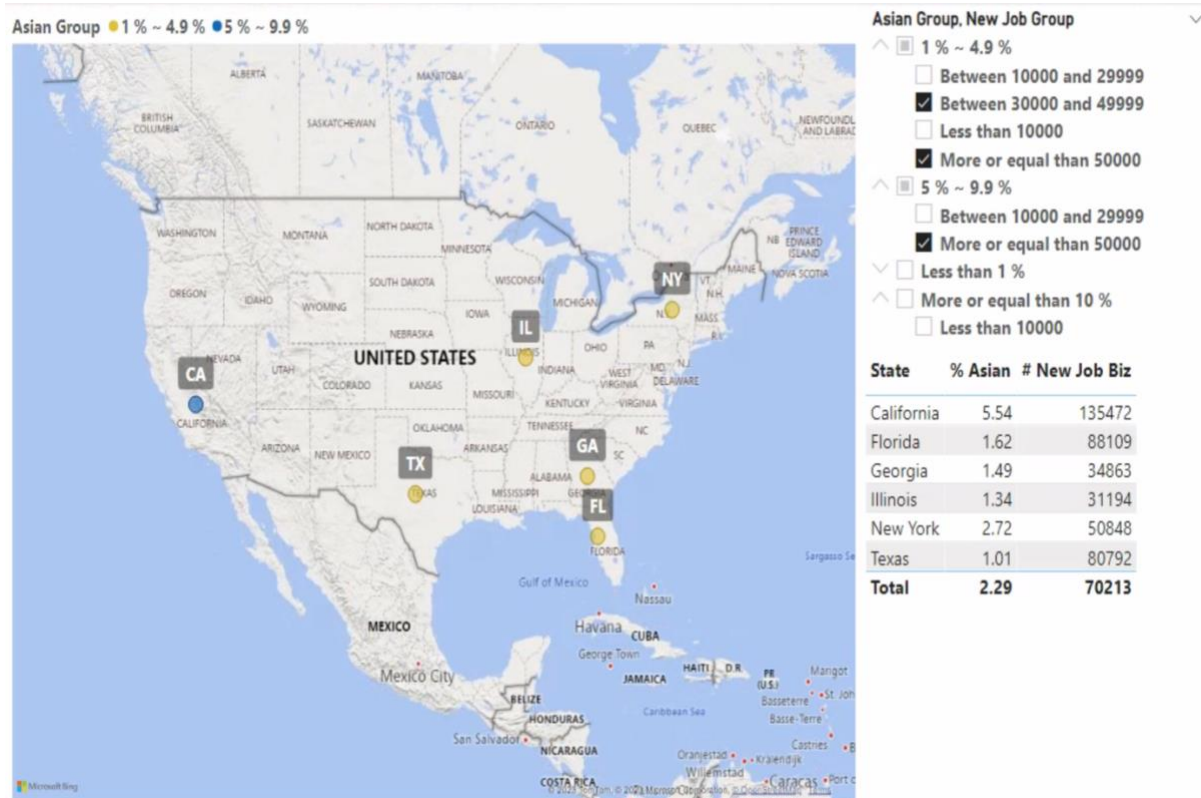
So, based on the above graph, it shows the detailed states that meet the decision criteria based on the percentage of Asians and the new job group. The criteria show six states with over 1% Asian population and more than 30,000 jobs, which are California, Florida, Georgia, Illinois, New York, and Texas.

Ultimately, based on the Part1, it can show that there is no correlation between job distribution groups and race, as White people make up over 70% in all job distribution groups, followed by a significant distribution of Black and Hispanic people. On the other hand, Native Americans and Asians are generally less distributed.

Furthermore, through Part 2, the final decision criteria I selected were met by the states of **California**, **Florida**, **Georgia**, **Illinois**, and **New York**. The average Asian distribution rate for these five states is 2.29%, and the median income is $70,213. Although the Asian distribution rate is lower than what I had expected, the high median income meets my decision criteria.

Summary

In summary, among the seven decision criteria that I set, Texas, Florida, New York, California, and Illinois were mentioned the most. Therefore, if I use these decision criteria, I plan to live in **Texas**, **Florida**, **New York**, **California**, and **Illinois**.
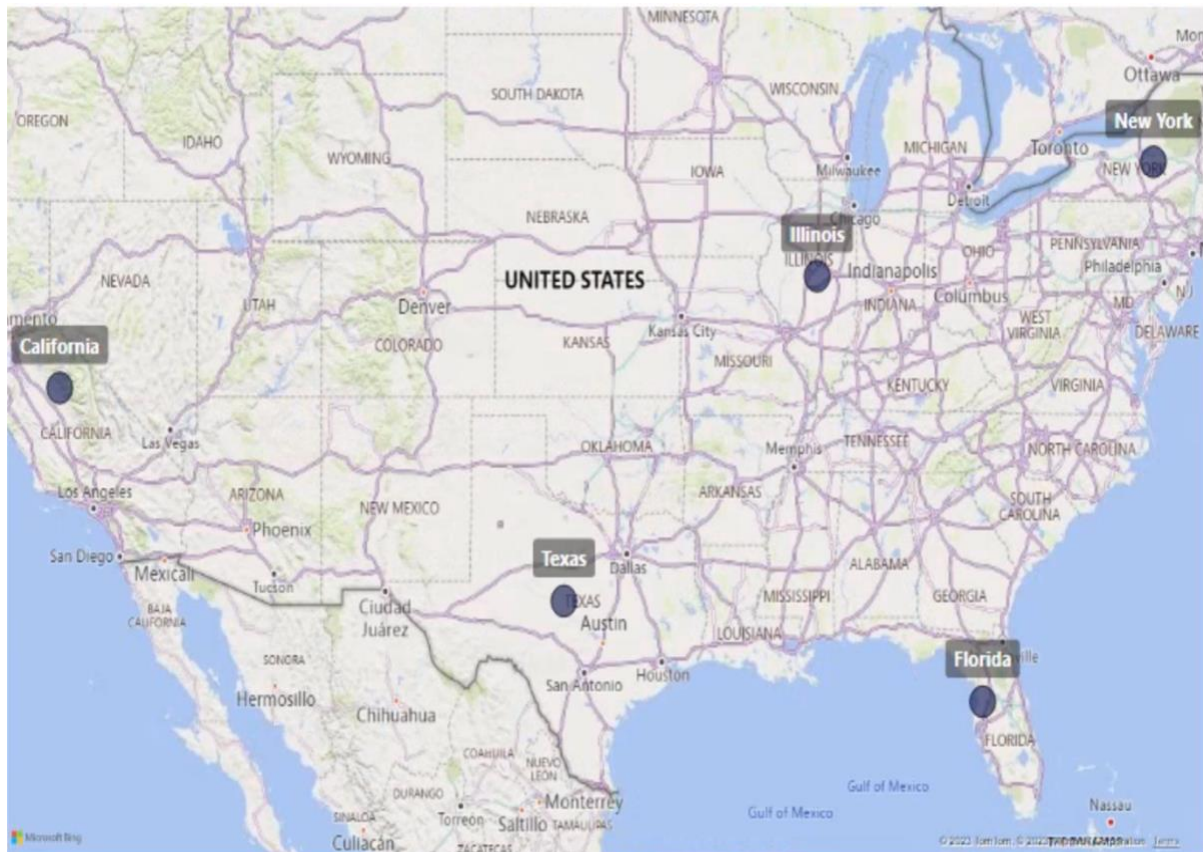
Extra Credit

Airbnb Cleaned Europe Dataset
From: https://www.kaggle.com/datasets/dipeshkhemani/airbnb-cleaned-europe-dataset

Original Data

This table contained 19 columns and 41,714 rows.

Cleaned Data

After removing unnecessary columns, this table contains 16 columns and 41,714 rows.

The data was uploaded to the my server space normally, the attributes of all variables were converted while importing data.

Appendix

USE [Featherman_Analytics];

-- Create main array
DECLARE @MainTable TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [# Small Biz] DECIMAL
, [% Emp by Small Biz] DECIMAL(20,2), [Med Income Emp Incorporated] DECIMAL (20,2), [Med Income Emp UNIcorporated] DECIMAL(20,2)
, [# New Biz] DECIMAL, [# New Job for Biz] DECIMAL, [% Exporters Small Biz] DECIMAL (20,2)
, [GDP Growth] DECIMAL(20,2), [Unemployment Rate] DECIMAL(20,2), [% Manufacturing Emp Small Biz] DECIMAL(20,2)
, [% Prof Service Emp Small Biz] DECIMAL(20,2), [% Mining Emp Small Biz] DECIMAL(20,2)
, [Med Income] DECIMAL(20,2), [% Pop Poverty] DECIMAL(20,2)
, [# Breweries] DECIMAL, [# Wineries] DECIMAL
, [% Completed HS] DECIMAL(20,2)
, [# Poverty] DECIMAL(20,2), [% Poverty] DECIMAL(20,2), [Med Household Income] DECIMAL(20,2)
, [Pop 1990] DECIMAL(20,2), [Pop 2000] DECIMAL(20,2), [Pop 2010] DECIMAL(20,2), [Pop 2018] DECIMAL(20,2), [PopChange] DECIMAL(20,2)
, [% White] DECIMAL(5,2), [% Black] DECIMAL(5,2), [% Native American] DECIMAL(5,2), [% Asian] DECIMAL(5,2), [% Hispanic] DECIMAL(5,2)
, [State Population] DECIMAL(20,2), [# Retirees] DECIMAL, [# Disabled Workers] DECIMAL
, [# Over 65 Female] DECIMAL, [# Over 65 Male] DECIMAL)

-- Create each array for 8 tables
DECLARE @SimBusiness TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [# Small Biz] DECIMAL(20,2)
, [% Emp by Small Biz] DECIMAL(20,2), [Med Income Emp Incorporated] DECIMAL (20,2), [Med Income Emp UNIcorporated] DECIMAL(20,2)
, [# New Biz] DECIMAL(20,2), [# New Job for Biz] DECIMAL(20,2), [% Exporters Small Biz] DECIMAL (20,2)
, [GDP Growth] DECIMAL(20,2), [Unemployment Rate] DECIMAL(20,2), [% Manufacturing Emp Small Biz] DECIMAL(20,2)
, [% Prof Service Emp Small Biz] DECIMAL(20,2), [% Mining Emp Small Biz] DECIMAL(20,2))

DECLARE @IncomeDeomographics TABLE ([State] NVARCHAR(2), [Med Income] DECIMAL(20,2), [% Pop Poverty] DECIMAL(20,2))

DECLARE @BreweriesWineries TABLE ([State] NVARCHAR(2), [# Breweries] DECIMAL(20,2), [# Wineries] DECIMAL(20,2))

DECLARE @CompletedHighSchool TABLE ([State] NVARCHAR(2), [% Completed HS] DECIMAL(20,2))

DECLARE @PovertyMedIncome TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [# Poverty] DECIMAL(20,2)
, [% Poverty] DECIMAL(20,2), [Med Household Income] DECIMAL(20,2))

DECLARE @PopulationChange TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [Pop 1990] DECIMAL(20,2), [Pop 2000] DECIMAL(20,2)
, [Pop 2010] DECIMAL(20,2), [Pop 2018] DECIMAL(20,2), [PopChange] DECIMAL(20,2))

DECLARE @Race TABLE ([State] NVARCHAR(2), [% White] DECIMAL(5,2), [% Black] DECIMAL(5,2), [% Native American] DECIMAL(5,2)
, [% Asian] DECIMAL(5,2), [% Hispanic] DECIMAL(5,2))

DECLARE @PopRetirees TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [State Pop] DECIMAL(20,2), [# Retirees] DECIMAL(20,2)
, [# Disabled Workers] DECIMAL(20,2), [# Over 65 Female] DECIMAL(20,2), [# Over 65 Male] DECIMAL(20,2))

```sql
-- Insert the data into each array
INSERT INTO @SimBusiness ([State], [State Name], [# Small Biz]
, [% Emp by Small Biz], [Med Income Emp Incorporated], [Med Income Emp UNIcorporated]
, [# New Biz], [# New Job for Biz], [% Exporters Small Biz]
, [GDP Growth], [Unemployment Rate], [% Manufacturing Emp Small Biz]
, [% Prof Service Emp Small Biz], [% Mining Emp Small Biz])
SELECT
[State],    [StateName],    [NumSmallBiz],    [PercentEmpbySmBiz],    [MedIncomeSelfEmplINcorBiz],
[MedIncomeSelfEmplUnIncorpBiz]
,[NumNewBiz2018], [NumNewJobsFromNewBiz2018], [PctOfExportersThatAreSmBiz], [StateGDPGrowth],
[StateUnemploymentRate]
,            [PctMfrEmpFromSmBiz],            ISNULL([PctProfessionalSvcEmpfromSMBiz],0),
ISNULL([PctMiningEmpfromSMBiz],0)
FROM [featherman].[ArraysHW_SmBizData2018]

INSERT INTO @IncomeDeomographics ([State],[Med Income],[% Pop Poverty])
SELECT [State], [MedianIncome], [%PopInPoverty]
FROM [featherman].[ArraysHW_IncomeDemographics]

INSERT INTO @BreweriesWineries ([State], [# Breweries], [# Wineries])
SELECT [State], [NumBreweries], [NumWineries]
FROM [featherman].[ArraysHW_NumBreweriesWineriesByState]

INSERT INTO @CompletedHighSchool ([State], [% Completed HS])
SELECT [State], FORMAT(AVG(ISNULL(PercentCompletedHS,0)), 'N2') --condense the data down to state
level
FROM [featherman].[ArraysHW_PctOver25GradHS]
GROUP BY State

INSERT INTO @PovertyMedIncome ([State], [State Name], [# Poverty], [% Poverty], [Med Household Income])
SELECT [State], [StateName], [Poverty#], [Poverty%], [MedHHIncome]
FROM [featherman].[ArraysHW_PovertyData_AndMedianIncome2016]

INSERT INTO @PopulationChange ([State],[State Name],[Pop 1990],[Pop 2000],[Pop 2010],[Pop
2018],[PopChange])
SELECT [State],[StateName], [Pop1990], [Pop2000], [Pop2010], [Pop2018], [PopChange2010-18]
FROM [featherman].[ArraysHW_PopulationChange]

INSERT INTO @Race ([State],[% White],[% Black],[% Native American],[% Asian],[% Hispanic])
SELECT [State] --condense the data down to state level
, AVG(ISNULL([%white],0)), AVG(ISNULL([%black],0)), AVG(ISNULL([%native_american],0))
, AVG(ISNULL([%asian],0)), AVG(ISNULL([%hispanic],0))
FROM [featherman].[ArraysHW_ShareRaceByCity]
GROUP BY [State]

INSERT INTO @PopRetirees ([State], [State Name],[State Pop],[# Retirees],[# Disabled Workers],[# Over 65
Female],[# Over 65 Male])
SELECT [State], [StateName], [Population], [#Retirees], [#DisabledWorkers], [Over65Fem], [Over65Men]
FROM [featherman].[ArraysHW_StatePopandRetirees]

-- insert into all data (8 arrays) into main array
INSERT INTO @MainTable ([State], [State Name], [# Small Biz]
, [% Emp by Small Biz], [Med Income Emp Incorporated], [Med Income Emp UNIcorporated]
, [# New Biz], [# New Job for Biz], [% Exporters Small Biz]
, [GDP Growth], [Unemployment Rate], [% Manufacturing Emp Small Biz]
, [% Prof Service Emp Small Biz], [% Mining Emp Small Biz]
, [Med Income],[% Pop Poverty]
, [# Breweries], [# Wineries]
, [% Completed HS]
```

, [# Poverty], [% Poverty], [Med Household Income]
, [Pop 1990], [Pop 2000], [Pop 2010], [Pop 2018], [PopChange]
, [% White], [% Black], [% Native American], [% Asian], [% Hispanic]
, [State Population], [# Retirees], [# Disabled Workers], [# Over 65 Female], [# Over 65 Male])
SELECT sb.[State], sb.[State Name], [# Small Biz]
, [% Emp by Small Biz], [Med Income Emp Incorporated], [Med Income Emp UNIcorporated]
, [# New Biz], [# New Job for Biz], [% Exporters Small Biz]
, [GDP Growth], [Unemployment Rate], [% Manufacturing Emp Small Biz]
, [% Prof Service Emp Small Biz], [% Mining Emp Small Biz]
, [Med Income],[% Pop Poverty]
, [# Breweries], [# Wineries]
, [% Completed HS]
, [# Poverty], [% Poverty], [Med Household Income]
, [Pop 1990], [Pop 2000], [Pop 2010], [Pop 2018], [PopChange]
, [% White], [% Black], [% Native American], [% Asian], [% Hispanic]
, [State Pop], [# Retirees], [# Disabled Workers], [# Over 65 Female], [# Over 65 Male]
FROM @SimBusiness as sb
INNER JOIN @IncomeDeomographics as idg ON sb.[State] = idg.[State]
INNER JOIN @BreweriesWineries as bw ON sb.[State] = bw.[State]
INNER JOIN @CompletedHighSchool as chs ON sb.[State] = chs.[State]
INNER JOIN @PovertyMedIncome as pmi ON sb.[State] = pmi.[State]
INNER JOIN @PopulationChange as pc ON sb.[State] = pc.[State]
INNER JOIN @Race as race ON sb.[State] = race.[State]
INNER JOIN @PopRetirees as pr ON sb.[State] = pr.[State]

Decision Criteria 1

```
-- create array
DECLARE @DecisionCriteria1 TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [Pop 1990]
DECIMAL, [Pop 2000] DECIMAL, [Pop 2010] DECIMAL, [Pop 2018] DECIMAL, [Pop Change]
DECIMAL(5,2), [Median Income] DECIMAL, [Pop Change Group] NVARCHAR(50), [Median Income Label]
NVARCHAR(50))

-- insert the data
INSERT INTO @DecisionCriteria1 ([State], [State Name], [Pop 1990], [Pop 2000], [Pop 2010], [Pop 2018], [Pop
Change],[Median Income])
SELECT [State], [State Name], [Pop 1990], [Pop 2000], [Pop 2010], [Pop 2018], [PopChange], [Med Income]
FROM @MainTable

-- build new column
UPDATE @DecisionCriteria1 SET [Pop Change Group]
= (SELECT CASE
        WHEN [Pop Change] >= 0.10 THEN 'Fast Increase'
        WHEN [Pop Change] BETWEEN 0.05 AND 0.099 THEN 'Moderate Increase'
        WHEN [Pop Change] BETWEEN 0.01 AND 0.049 THEN 'Slow Increase'
        WHEN [Pop Change] = 0.00 THEN 'Stagnant'
        WHEN [Pop Change] < 0.00 THEN 'Decrease'
        END)

UPDATE @DecisionCriteria1 SET [Median Income Label]
= (SELECT CASE
        WHEN [Median Income] >= 70000 THEN 'High'
        WHEN [Median Income] BETWEEN 50000 AND 69999 THEN 'Medium'
        WHEN [Median Income] < 50000 THEN 'Low'
        END)

-- save the array to my database
SELECT * INTO [MF31namjun.lee].[dbo].[TSQL6_DecisionCriteria1]
FROM @DecisionCriteria1
```

Decision Criteria2

-- create array
DECLARE @DecisionCriteria2 TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [# Poverty] DECIMAL, [% Poverty] DECIMAL(5,2), [Med Household Income] DECIMAL(20,2), [% High School Graduate] DECIMAL (5,2), [Unemployment Rate] DECIMAL (5,2), [% Not Poverty] DECIMAL (5,2), [Poverty Level] NVARCHAR(50)
, [Unemployment Label] NVARCHAR(50), [Graduated High School Label] NVARCHAR(50))

-- insert the data
INSERT INTO @DecisionCriteria2 ([State], [State Name], [# Poverty], [% Poverty], [Med Household Income], [% High School Graduate], [Unemployment Rate])
SELECT [State], [State Name], [# Poverty], [% Poverty], [Med Household Income], [% Completed HS], [Unemployment Rate]
FROM @MainTable

DECLARE @TotalPercent as DECIMAL = 100 -- set total percent into array

-- build new columns
UPDATE @DecisionCriteria2 SET [% Not Poverty]
= (SELECT (@TotalPercent - [% Poverty]))

UPDATE @DecisionCriteria2 SET [Poverty Level]
= (SELECT CASE
        WHEN [% Poverty] >= 20.00 THEN 'Level 4'
        WHEN [% Poverty] BETWEEN 15.00 AND 19.99 THEN 'Level 3'
        WHEN [% Poverty] BETWEEN 10.00 AND 14.99 THEN 'Level 2'
        WHEN [% Poverty] < 10.00 THEN 'Level 1'
        END)

UPDATE @DecisionCriteria2 SET [Unemployment Label]
= (SELECT CASE
        WHEN [Unemployment Rate] >= 0.05 THEN 'High'
        WHEN [Unemployment Rate] BETWEEN 0.03 AND 0.049 THEN 'Medium'
        WHEN [Unemployment Rate] < 0.03 THEN 'Low'
        END)

UPDATE @DecisionCriteria2 SET [Graduated High School Label]
= (SELECT CASE
        WHEN [% High School Graduate] BETWEEN 90.00 AND 100 THEN 'High'
        WHEN [% High School Graduate] BETWEEN 80.00 AND 89.99 THEN 'Average'
        WHEN [% High School Graduate] BETWEEN 70.00 AND 79.99 THEN 'Low'
        END)

-- save the array to my database
SELECT * INTO [MF31namjun.lee].[dbo].[TSQL6_DecisionCriteria2]
FROM @DecisionCriteria2

Decision Criteria3

-- create array
DECLARE @DecisionCriteria3 TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [State Population] DECIMAL, [# Retirees] DECIMAL, [# Over 65 Female] DECIMAL, [# Over 65 Male] DECIMAL, [# Total Over 65] DECIMAL, [% Total Over 65] DECIMAL(5,2), [% Retirees] DECIMAL(5,2), [Retirees Label] NVARCHAR(50), [Over 65 Label] NVARCHAR(50))

-- insert the data
INSERT INTO @DecisionCriteria3 ([State], [State Name], [State Population], [# Retirees], [# Over 65 Female], [# Over 65 Male])
SELECT [State], [State Name], [State Population], [# Retirees],   [# Over 65 Female], [# Over 65 Male]

```
FROM @MainTable

-- build new columns
UPDATE @DecisionCriteria3 SET [# Total Over 65]
= (SELECT [# Over 65 Female] + [# Over 65 Male])

UPDATE @DecisionCriteria3 SET [% Total Over 65]
= (SELECT [# Total Over 65] / [State Population])

UPDATE @DecisionCriteria3 SET [% Retirees]
= (SELECT [# Retirees] / [State Population])

UPDATE @DecisionCriteria3 SET [Retirees Label]
= (SELECT CASE
        WHEN [% Retirees] >= 0.70 THEN 'Very large distribution'
        WHEN [% Retirees] BETWEEN 0.65 AND 0.69 THEN 'Large distribution'
        WHEN [% Retirees] BETWEEN 0.60 AND 0.64 THEN 'Normal distribution'
        WHEN [% Retirees] < 0.60 THEN 'Less distribution'
        END)

UPDATE @DecisionCriteria3 SET [Over 65 Label]
= (SELECT CASE
        WHEN [% Total Over 65] >= 0.70 THEN 'Over 70 %'
        WHEN [% Total Over 65] BETWEEN 0.65 AND 0.69 THEN '65 ~ 69.9 %'
        WHEN [% Total Over 65] < 0.65 THEN 'Less 65 %'
        END)

-- save the array to my database
SELECT * INTO [MF31namjun.lee].[dbo].[TSQL6_DecisionCriteria3]
FROM @DecisionCriteria3
```

Decision Criteria4

```
-- create array
DECLARE @DecisionCriteria4 TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [# New Biz]
DECIMAL, [# New Job Biz] DECIMAL, [GDP Growth] DECIMAL(20,2), [GDP Group] NVARCHAR(50),
[New Job Level] NVARCHAR(50))

-- insert the data
INSERT INTO @DecisionCriteria4 ([State], [State Name], [# New Biz], [# New Job Biz], [GDP Growth])
SELECT [State], [State Name], [# New Biz], [# New Job for Biz], [GDP Growth]
FROM @MainTable

-- build new columns
UPDATE @DecisionCriteria4 SET [GDP Group]
= (SELECT CASE
        WHEN [GDP Growth] >= 0.05 THEN 'Fast'
        WHEN [GDP Growth] BETWEEN 0.03 AND 0.049 THEN 'Moderate'
        WHEN [GDP Growth] BETWEEN 0.01 AND 0.029 THEN 'Slow'
        WHEN [GDP Growth] < 0.01 THEN 'Stagnant'
        END)

UPDATE @DecisionCriteria4 SET [New Job Level]
= (SELECT CASE
        WHEN [# New Job Biz] >= 50000 THEN 'Excellent'
        WHEN [# New Job Biz] BETWEEN 30000 AND 49999 THEN 'Great'
        WHEN [# New Job Biz] BETWEEN 10000 AND 29999 THEN 'Normal'
        WHEN [# New Job Biz] < 10000 THEN 'Poor'
        END)
```

-- save the array to my database
SELECT * INTO [MF31namjun.lee].[dbo].[TSQL6_DecisionCriteria4]
FROM @DecisionCriteria4

Decision Criteria 5

-- create array
DECLARE @DecisionCriteria5 TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [# Small Biz]
DECIMAL, [% Exporters Emp] DECIMAL(5,2), [% Manufacturing Emp] DECIMAL(5,2) , [% Prof Service
Emp] DECIMAL(5,2), [% Mining Emp] DECIMAL(5,2), [GDP Growth] DECIMAL(5,2), [# Business Level]
NVARCHAR(50), [GDP Group] NVARCHAR(50))

-- insert the data
INSERT INTO @DecisionCriteria5 ([State], [State Name], [# Small Biz], [% Exporters Emp], [% Manufacturing
Emp], [% Prof Service Emp], [% Mining Emp], [GDP Growth])
SELECT [State], [State Name], [# Small Biz], [% Exporters Small Biz], [% Manufacturing Emp Small Biz], [%
Prof Service Emp Small Biz], [% Mining Emp Small Biz], [GDP Growth]
FROM @MainTable

-- build new columns
UPDATE @DecisionCriteria5 SET [GDP Group]
= (SELECT CASE
        WHEN [GDP Growth] >= 0.05 THEN 'Fast'
        WHEN [GDP Growth] BETWEEN 0.03 AND 0.049 THEN 'Moderate'
        WHEN [GDP Growth] BETWEEN 0.01 AND 0.029 THEN 'Slow'
        WHEN [GDP Growth] < 0.01 THEN 'Stagnant'
        END)

UPDATE @DecisionCriteria5 SET [# Business Level]
= (SELECT CASE
        WHEN [# Small Biz] >= 1000000 THEN 'More or equal than 1000K'
        WHEN [# Small Biz] BETWEEN 500000 AND 999999 THEN 'Between 500K and 999K'
        WHEN [# Small Biz] BETWEEN 100000 AND 499999 THEN 'Between 100K and 499K'
        WHEN [# Small Biz] BETWEEN 50000 AND 99999 THEN 'Between 50K and 99K'
        WHEN [# Small Biz] < 50000 THEN 'Less than 50K'
        END)

-- save the array to my database
SELECT * INTO [MF31namjun.lee].[dbo].[TSQL6_DecisionCriteria5]
FROM @DecisionCriteria5

Decision Criteria 6

-- create array
DECLARE @DecisionCriteria6 TABLE ([State] NVARCHAR(2), [State Name] NVARCHAR(50), [# Breweries]
DECIMAL, [# Wineries] DECIMAL, [Med Income] DECIMAL, [Total BrewWine] DECIMAL, [BrewWine
Group] NVARCHAR(50), [Med Income Group] NVARCHAR(50))

-- insert the data
INSERT INTO @DecisionCriteria6 ([State], [State Name], [# Breweries], [# Wineries], [Med Income])
SELECT [State], [State Name], [# Breweries], [# Wineries], [Med Income]
FROM @MainTable

-- build new columns
UPDATE @DecisionCriteria6 SET [Total BrewWine]
= (SELECT [# Breweries] + [# Wineries])

UPDATE @DecisionCriteria6 SET [BrewWine Group]
= (SELECT CASE
        WHEN [Total BrewWine] >= 1000 THEN 'More or equal than 1000'

```
            WHEN [Total BrewWine] BETWEEN 500 AND 999 THEN 'Between 500 and 999'
            WHEN [Total BrewWine] BETWEEN 100 AND 499 THEN 'Between 100 and 499'
            WHEN [Total BrewWine] < 100 Then 'Less than 100'
            END)

UPDATE @DecisionCriteria6 SET [Med Income Group]
= (SELECT CASE
            WHEN [Med Income] > 60000 THEN 'High'
            WHEN [Med Income] BETWEEN 40000 AND 60000 THEN 'Medium'
            WHEN [Med Income] < 40000 THEN 'Low'
            END)

-- save the array to my database
SELECT * INTO [MF31namjun.lee].[dbo].[TSQL6_DecisionCriteria6]
FROM @DecisionCriteria6
```

Decision Criteria 7

```
-- create array
DECLARE @DecisionCriteria7 TABLE([State] NVARCHAR(2), [State Name] NVARCHAR(50), [# New Job
Biz] DECIMAL, [% White] DECIMAL(5,2), [% Black] DECIMAL(5,2), [% Native American] DECIMAL(5,2),
[% Asian] DECIMAL(5,2), [% Hispanic] DECIMAL(5,2), [Asian Group] NVARCHAR(50), [New Job Group]
NVARCHAR(50))

-- insert the data
INSERT INTO @DecisionCriteria7 ([State], [State Name], [# New Job Biz], [% White], [% Black], [% Native
American], [% Asian], [% Hispanic])
SELECT [State], [State Name], [# New Job for Biz], [% White], [% Black], [% Native American], [% Asian], [%
Hispanic]
FROM @MainTable

-- build new columns
UPDATE @DecisionCriteria7 SET [New Job Group]
= (SELECT CASE
            WHEN [# New Job Biz] >= 50000 THEN 'More or equal than 50000'
            WHEN [# New Job Biz] BETWEEN 30000 AND 49999 THEN 'Between 30000 and 49999'
            WHEN [# New Job Biz] BETWEEN 10000 AND 29999 THEN 'Between 10000 and 29999'
            WHEN [# New Job Biz] < 10000 THEN 'Less than 10000'
            END)

UPDATE @DecisionCriteria7 SET [Asian Group]
= (SELECT CASE
            WHEN [% Asian] >= 10.00 THEN 'More or equal than 10 %'
            WHEN [% Asian] BETWEEN 5.00 AND 9.99 THEN '5 % ~ 9.9 %'
            WHEN [% Asian] BETWEEN 1.00 AND 4.99 THEN '1 % ~ 4.9 %'
            WHEN [% Asian] < 1.00 THEN 'Less than 1 %'
            END)

-- save the array to my database
SELECT * INTO [MF31namjun.lee].[dbo].[TSQL6_DecisionCriteria7]
FROM @DecisionCriteria7
```