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Automating Checks for the CPS ASEC Poverty Detailed Tables

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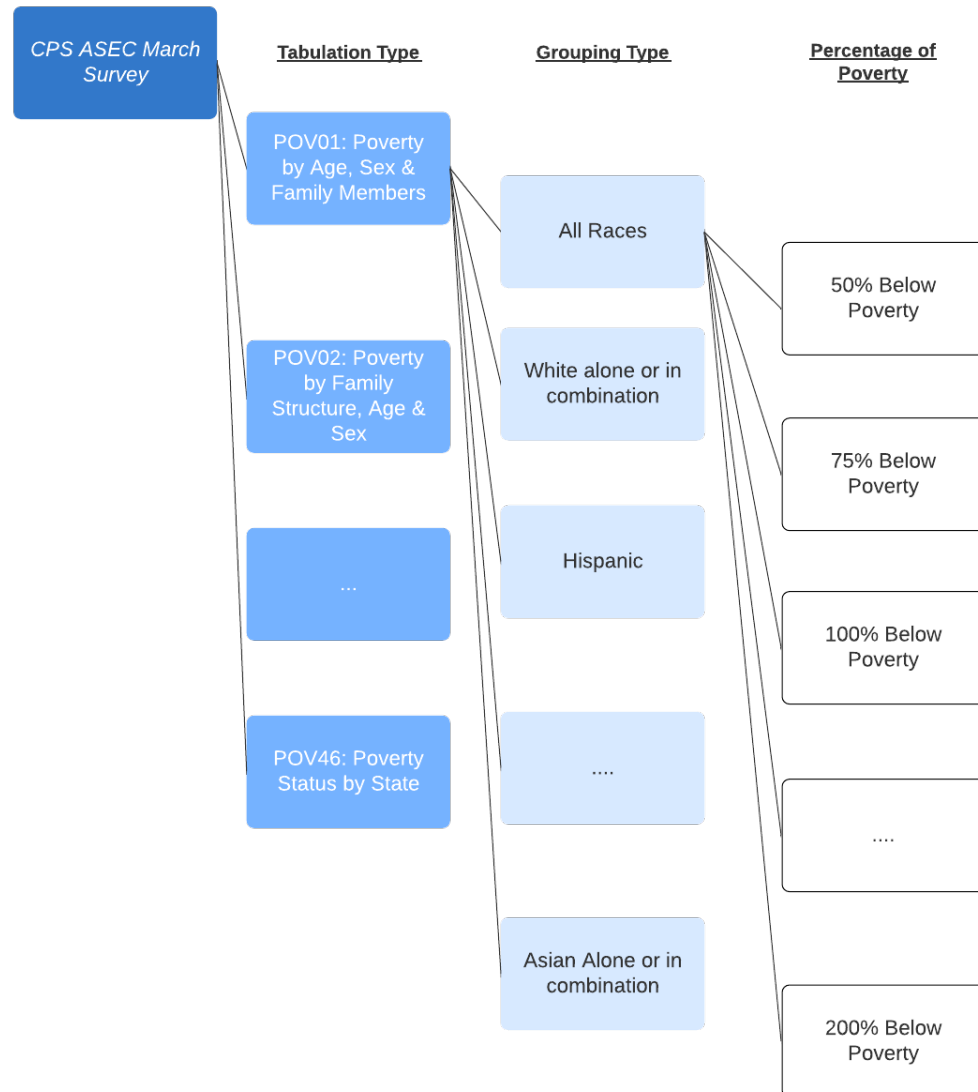
Poverty Statistics Branch (PSB)

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What are the CPS ASEC Poverty Detailed Tables?



→ 46 Table Types (approx. 1,200 files)

→ Published Yearly

Current Process

→ Produced in Python & SAS by the TAB department

→ PSB responsible for confirming accuracy in results & formatting

- Calculate individually and visually compare

Challenges

→ Knowledge Acquisition

→ Limited Coverage

→ Time Consumption

POV01: Age and Sex of All People, Family Members and Unrelated Individuals: 2019

Below 100% of Poverty -- All Races (1)

For information on confidentiality protection, sampling error, nonsampling error, and definitions, see <<https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar20.pdf>>.

Source: U.S. Census Bureau, Current Population Survey, 2020 Annual Social and Economic Supplement (CPS ASEC).

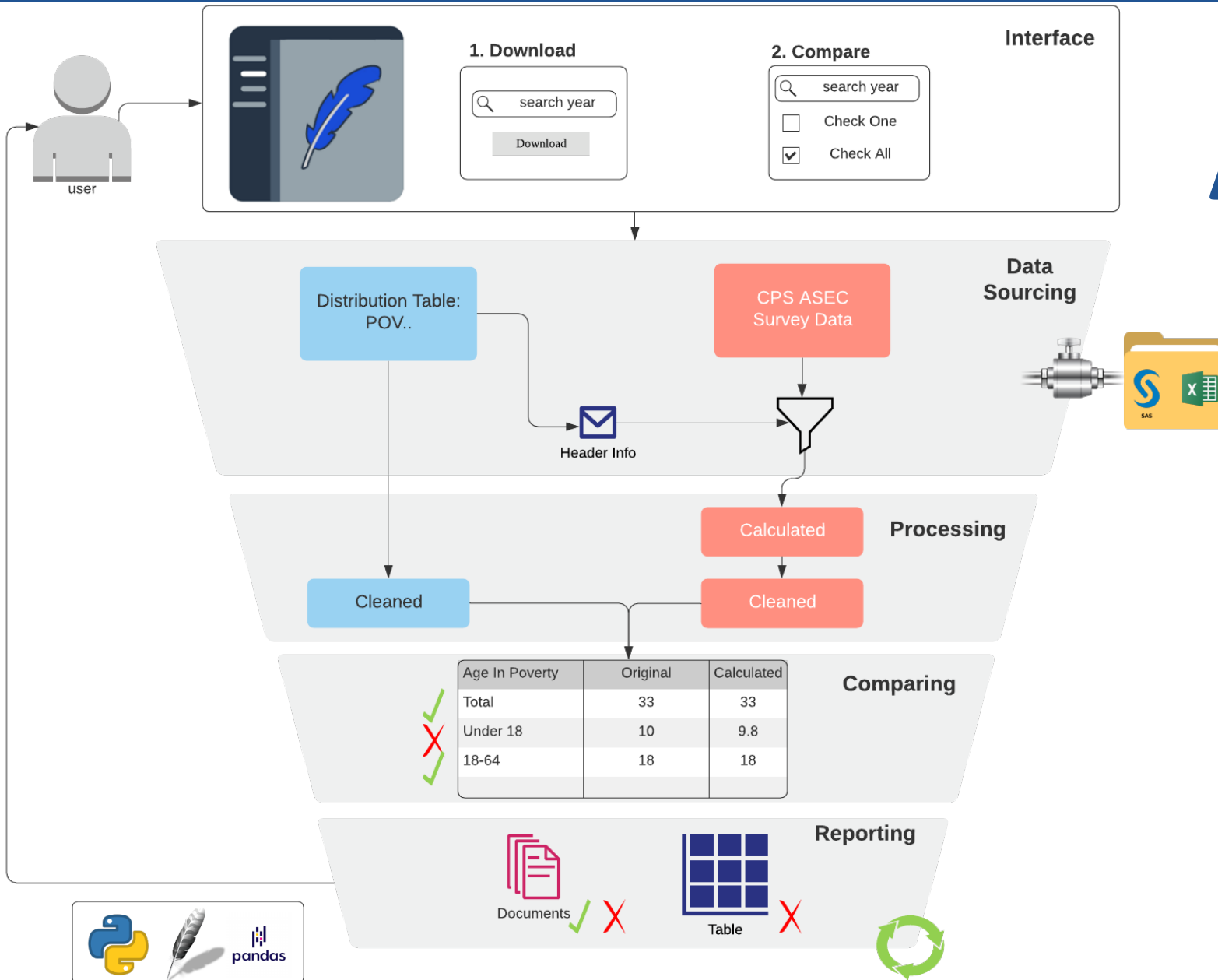
(Population in thousands. Population as of March of the following year)

Both Sexes

All Races Below 100%	All people			People in primary families (2)			People in unrelated subfamilies (3)			Unrelated individuals (4)		
	All income levels	Below 100% of poverty (5)	Percentage below 100% of poverty (6)	All income levels	Below 100% of poverty (5)	Percentage below 100% of poverty (6)	All income levels	Below 100% of poverty (5)	Percentage below 100% of poverty (6)	All income levels	Below 100% of poverty (5)	Percentage below 100% of poverty (6)
Total	324,754	33,984	10.5	263,696	22,431	8.5	941	253	26.9	60,117	11,300	18.8
Under 18 years	72,637	10,466	14.4	72,009	10,185	14.1	476	142	29.9	151	139	91.7
Under 5 years	19,255	3,015	15.7	19,194	2,986	15.6	61	(B)	(B)	(X)	(X)	(X)
5 to 17 years	53,382	7,451	14.0	52,815	7,199	13.6	415	114	27.3	151	139	91.7
18 to 64 years	197,475	18,660	9.4	153,804	10,244	6.7	449	111	24.7	43,222	8,306	19.2
18 to 24 years	29,059	3,856	13.3	22,926	1,754	7.7	52	(B)	(B)	6,081	2,073	34.1
25 to 34 years	45,260	4,537	10.0	31,976	2,812	8.8	165	42	25.6	13,119	1,683	12.8
35 to 44 years	41,412	3,498	8.4	34,561	2,435	7.0	139	32	22.8	6,713	1,031	15.4
45 to 54 years	39,587	2,920	7.4	32,245	1,668	5.2	68	(B)	(B)	7,274	1,245	17.1
55 to 59 years	21,142	1,818	8.6	16,442	781	4.8	19	(B)	(B)	4,681	1,036	22.1
60 to 64 years	21,015	2,032	9.7	15,654	794	5.1	7	(B)	(B)	5,354	1,236	23.1
65 years and over	54,642	4,858	8.9	37,883	2,003	5.3	16	(B)	(B)	16,744	2,855	17.1
65 to 74 years	32,269	2,563	7.9	23,776	1,135	4.8	16	(B)	(B)	8,478	1,428	16.8
75 years and over	22,373	2,295	10.3	14,107	867	6.1	0	(B)	(B)	8,266	1,427	17.3

Table Example

Application



Outcomes

Knowledge Acquisition

- Requires training and familiarity to replicate
- Anyone can quickly replicate checks with a couple clicks

Limited Coverage

- Spot Checks (7.67 % coverage)
- 78% of all tables checked

Time

- 2019 checks consumed approx. 5 weeks of the staff's time (400 hours)
- Now it's a background process taking 3.5 hours to complete

Deliverables & Next Steps

- ✓ **Functional application**
- ✓ **Comparison reports**
- ✓ **Documentation**

- **Up-keep formatting changes**
- **Refactor & optimize data models**