

# Taking a little pain out of processing ACS data

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ASSOCIATION OF PUBLIC DATA USERS ANNUAL CONFERENCE  
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# Improved lives and decreased disparities through democratized data

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- CI:Now: nonprofit local data intermediary housed at UTHealth SPH
- SA partner in National Neighborhood Indicators Partnership (NNIP)
- Some ways we help
  - Open up access to timely, relevant, neutral data, including admin data
  - Assess and monitor community conditions
  - Help people understand and use data
  - Help define outcomes/results and indicators, select data sources
  - Bring others together to use data to improve quality of life: Alamo Regional Data Alliance

# The felt need




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- Idea came out of NNIP partner discussion about how to streamline ACS data processing, but the need goes far beyond NNIP
- Free web-based interactive tool that allows you to build, run, save and share ACS queries
- Create and save custom variable groupings (custom geography, age range) with aggregate estimate, percent estimate, and MOE calculations
- Preview and export to csv and JSON
- Focus first on ACS five-year estimates for Texas; open source

## Example use case

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- Local foundation convenes community partners to determine funding priorities
- Interest in lower-income older population, current and near-future
- Consensus that 100% FPL threshold too low; <300% FPL instead
- Want current county and sub-county data (w/ MOEs) and maps
- Likely to come back with follow-up requests for detail, trend, comparison geographies, etc.
- Need deliverables in three business days

-  Query Builder
-  Queries <
-  Lists <

# Query Builder

**Dataset**

2015 ACS 5-year ▼

**Geography**

COUNTY ▼

**Concept**

ratio ✕

**Available Variables**

Filter ...

**Selected Variables**

Filter ...

**Data Filters**

Select a variable ... ▼ is ▼ Value ... +

**Percentage Denominator**

Disabled ▼

**Query**



- Public Health Insurance by Ratio of Income to Poverty Level in the Past 12 Months by Age
- Ratio of Income to Poverty Level in the Past 12 Months by Disability Status
- Age by Ratio of Income to Poverty Level in the Past 12 Months
- Ratio of Income to Poverty Level in the Past 12 Months of Children by Living Arrangements and Nativity of Parents
- Mortgage Status by Ratio of Value to Household Income
- Ratio of Income to Poverty Level in the Past 12 Months of Families by Family Type by Presence of Related Children Under 18 Years by Age of Related Children
- Multigenerational Households
- Median Duration of Current Marriage in Years by Sex by Marital Status for the Married Population 15 Years and Over
- Health Insurance Coverage Status by Ratio of Income to Poverty Level by Age
- Ratio of Income to Poverty Level in the Past 12 Months
- Private Health Insurance by Ratio of Income to Poverty Level in the Past 12 Months by Age
- Ratio of Income to Poverty Level of Families in the Past 12 Months

-  Query Builder
-  Queries <
-  Lists <

# Query Builder

### Dataset

### Geography

### Concept

### Available Variables

Filter ...

- COUNTY
- COUNTY NAME
- STATE
- (B17024) Total
- (B17024) Under 6 years
- (B17024) Under 6 years->Under .50
- (B17024) Under 6 years->.50 to .74
- (B17024) Under 6 years->.75 to .99
- (B17024) Under 6 years->1.00 to 1.24
- (B17024) Under 6 years->1.25 to 1.49
- (B17024) Under 6 years->1.50 to 1.74
- (B17024) Under 6 years->1.75 to 1.84
- (B17024) Under 6 years->1.85 to 1.99
- (B17024) Under 6 years->2.00 to 2.99
- (B17024) Under 6 years->3.00 to 3.99

### Selected Variables

Filter ...

### Data Filters

Select a variable ... is Value ... +

### Aggregations

Alias ... One value per line ... +

### Percentage Denominator

### Query



# Query Builder (Age 55+ <300% FPL)

Dataset

2015 ACS 5-year

Geography

COUNTY

Concept

B17024

## Available Variables

- Filter ...
- (B17024) 45 to 54 years->1.75 to 1.84
  - (B17024) 45 to 54 years->1.85 to 1.99
  - (B17024) 45 to 54 years->2.00 to 2.99
  - (B17024) 45 to 54 years->3.00 to 3.99
  - (B17024) 45 to 54 years->4.00 to 4.99
  - (B17024) 45 to 54 years->5.00 and over
  - (B17024) 55 to 64 years->3.00 to 3.99**
  - (B17024) 55 to 64 years->4.00 to 4.99**
  - (B17024) 55 to 64 years->5.00 and over**
  - (B17024) 65 to 74 years->3.00 to 3.99
  - (B17024) 65 to 74 years->4.00 to 4.99
  - (B17024) 65 to 74 years->5.00 and over
  - (B17024) 75 years and over->3.00 to 3.99
  - (B17024) 75 years and over->4.00 to 4.99
  - (B17024) 75 years and over->5.00 and over

## Data Filters

Select a variable ... is Value ...

B17024\_COUNTYNAME is bexar county, texas

## Percentage Denominator

Disabled

## Selected Variables

- Filter ...
- COUNTY NAME
  - (B17024) 55 to 64 years
  - (B17024) 55 to 64 years->Under .50
  - (B17024) 55 to 64 years->.50 to .74
  - (B17024) 55 to 64 years->.75 to .99
  - (B17024) 55 to 64 years->1.00 to 1.24
  - (B17024) 55 to 64 years->1.25 to 1.49
  - (B17024) 55 to 64 years->1.50 to 1.74
  - (B17024) 55 to 64 years->1.75 to 1.84
  - (B17024) 55 to 64 years->1.85 to 1.99
  - (B17024) 55 to 64 years->2.00 to 2.99
  - (B17024) 65 to 74 years
  - (B17024) 65 to 74 years->Under .50
  - (B17024) 65 to 74 years->.50 to .74
  - (B17024) 65 to 74 years->.75 to .99

## Aggregations

55-64 <300% COLUMNS

- (B17024) 55 to 64 years->1.50 to 1.74
- (B17024) 55 to 64 years->1.75 to 1.84
- (B17024) 55 to 64 years->1.85 to 1.99
- (B17024) 55 to 64 years->2.00 to 2.99

65-74 <300%: COLUMNS in (B17024) 65 to 74 years->Under .50, (B17024) 65 to 74 years->.50 to .74, (B17024) 65 to 74 years->.75 to .99, (B17024) 65 to 74 years->1.00 to 1.24, (B17024) 65 to 74 years->1.25 to 1.49, (B17024) 65 to 74 years->1.50 to 1.74, (B17024) 65 to 74 years->1.75 to 1.84, (B17024) 65 to 74 years->1.85 to 1.99, (B17024) 65 to 74 years->2.00 to 2.99

75+ <300%: COLUMNS in (B17024) 75 years and over->Under .50, (B17024) 75 years and over->.50 to .74, (B17024) 75 years and over->.75 to .99, (B17024) 75 years and over->1.00 to 1.24, (B17024) 75 years and over->1.25 to 1.49, (B17024) 75 years and over->1.50 to 1.74, (B17024) 75 years and over->1.75 to 1.84, (B17024) 75 years and over->1.85 to 1.99, (B17024) 75 years and over->2.00 to 2.99

- Query Builder
- Queries
  - Age 55+ <300% FPL
- Lists

## Query Builder (Age 55+ <300% FPL)

Dataset: 2015 ACS 5-year | Geography: COUNTY | Concept: B17024

- Available Variables
- (B17024) 45 to 54 years->1.50 to 1.74
  - (B17024) 45 to 54 years->1.75 to 1.84
  - (B17024) 45 to 54 years->1.85 to 1.99
  - (B17024) 45 to 54 years->2.00 to 2.99
  - (B17024) 45 to 54 years->3.00 to 3.99
  - (B17024) 45 to 54 years->4.00 to 4.99
  - (B17024) 45 to 54 years->5.00 and over
  - (B17024) 55 to 64 years->Under .50
  - (B17024) 55 to 64 years->.50 to .74
  - (B17024) 55 to 64 years->.75 to .99
  - (B17024) 55 to 64 years->1.00 to 1.24
  - (B17024) 55 to 64 years->1.25 to 1.49
  - (B17024) 55 to 64 years->1.50 to 1.74
  - (B17024) 55 to 64 years->1.75 to 1.84
  - (B17024) 55 to 64 years->1.85 to 1.99

**Save Query**

Name: Age 55+ <300% FPL

Description: Age groups 55-64, 65-74, 75+, <300%FPL, Bexar

Public

Save

Saved

- Selected Variables
- COUNTY NAME
  - (B17024) 55 to 64 years
  - (B17024) 65 to 74 years
  - (B17024) 75 years and over

Data Filters

Select a variable ... is ...

B17024\_COUNTYNAME is bexar county, texas

Percentage Denominator

Disabled

- Aggregations
- Alias ... One value per line ...
- 65-74 <300%: COLUMNS in (B17024) 65 to 74 years->Under .50, (B17024) 65 to 74 years->.50 to .74, (B17024) 65 to 74 years->.75 to .99, (B17024) 65 to 74 years->1.00 to 1.24, (B17024) 65 to 74 years->1.25 to 1.49, (B17024) 65 to 74 years->1.50 to 1.74, (B17024) 65 to 74 years->1.75 to 1.84, (B17024) 65 to 74 years->1.85 to 1.99, (B17024) 65 to 74 years->2.00 to 2.99
- 75+ <300%: COLUMNS in (B17024) 75 years and over->Under .50, (B17024) 75 years and over->.50 to .74, (B17024) 75 years and over->.75 to .99, (B17024) 75 years and over->1.00 to 1.24, (B17024) 75 years and over->1.25 to 1.49, (B17024) 75 years and over->1.50 to 1.74, (B17024) 75 years and over->1.75 to 1.84, (B17024) 75 years and over->1.85 to 1.99, (B17024) 75 years and over->2.00 to 2.99

Query

```
SELECT
COUNTY_B17024.B
```

A	B	C	D	E	F	G	H	I	J	K	L	M	
	(B17024) 55 to 64 years	(B17024) 55 to 64 years (MOE)	(B17024) 65 to 74 years	(B17024) 65 to 74 years (MOE)	(B17024) 75 years and over	(B17024) 75 years and over (MOE)	55-64 <300%	55-64 <300% (MOE)	65-74 <300%	65-74 <300% (MOE)	75+ <300%	75+ <300% (MOE)	
COUNTY NAME	Bexar County, Texas	189252	213	113563	185	82269	396	86702	2274	53941	1642	45548	1467
								46%	1%	47%	1%	55%	2%

COUNTY NAME	(B17024) 55 to 64 years	(B17024) 55 to 64 years (MOE)	(B17024) 65 to 74 years	(B17024) 65 to 74 years (MOE)	(B17024) 75 years and over	(B17024) 75 years and over (MOE)	65-74 <300%	65-74 <300% (MOE)	75+ <300%	75+ <300% (MOE)	55-64 <300%	55-64 <300% (MOE)
Bexar County, Texas	189252	213	113563	185	82269	396	53941	1642	45548	1467	86702	2274



- Query Builder
- Queries**
  - Age 55+ <300% FPL
- Lists

# Query Builder (Age 55+ <300% FPL)

### Dataset

2015 ACS 5-year

### Geography

COUNTY

### Concept

B17024

### Available Variables

- Filter ...
- (B17024) 45 to 54 years->1.50 to 1.74
  - (B17024) 45 to 54 years->1.75 to 1.84
  - (B17024) 45 to 54 years->1.85 to 1.99
  - (B17024) 45 to 54 years->2.00 to 2.99
  - (B17024) 45 to 54 years->3.00 to 3.99
  - (B17024) 45 to 54 years->4.00 to 4.99
  - (B17024) 45 to 54 years->5.00 and over
  - (B17024) 55 to 64 years**
  - (B17024) 55 to 64 years->Under .50
  - (B17024) 55 to 64 years->.50 to .74
  - (B17024) 55 to 64 years->.75 to .99
  - (B17024) 55 to 64 years->1.00 to 1.24
  - (B17024) 55 to 64 years->1.25 to 1.49
  - (B17024) 55 to 64 years->1.50 to 1.74
  - (B17024) 55 to 64 years->1.75 to 1.84

### Data Filters

COUNTY NAME in **el paso county, texas**

harris county, texas

### Percentage Denominator

Disabled

### Query

SELECT

### Selected Variables

- Filter ...
- COUNTY NAME
  - (B17024) 75 years and over

### Aggregations

Alias ... One value per line ...

75+ <300%: COLUMNS in (B17024) 75 years and over->Under .50, (B17024) 75 years and over->.50 to .74, (B17024) 75 years and over->.75 to .99, (B17024) 75 years and over->1.00 to 1.24, (B17024) 75 years and over->1.25 to 1.49, (B17024) 75 years and over->1.50 to 1.74, (B17024) 75 years and over->1.75 to 1.84, (B17024) 75 years and over->1.85 to 1.99, (B17024) 75 years and over->2.00 to 2.99

Queries

Age 55+ <300% FPL

Lists

- (B17024) Under 6 years->.75 to .99
- (B17024) Under 6 years->1.00 to 1.24
- (B17024) Under 6 years->1.25 to 1.49
- (B17024) Under 6 years->1.50 to 1.74
- (B17024) Under 6 years->1.75 to 1.84
- (B17024) Under 6 years->1.85 to 1.99
- (B17024) Under 6 years->2.00 to 2.99
- (B17024) Under 6 years->3.00 to 3.99
- (B17024) Under 6 years->4.00 to 4.99
- (B17024) Under 6 years->5.00 and over
- (B17024) 6 to 11 years
- (B17024) 6 to 11 years->Under .50
- (B17024) 6 to 11 years->.50 to .74
- (B17024) 6 to 11 years->.75 to .99
- (B17024) 6 to 11 years->1.00 to 1.24

COUNTY NAME  
(B17024) 75 years and over

Data Filters

Select a variable ... is Value ...

B17024\_COUNTYNAME in bexar county, texas collin county, texas dallas county, texas el paso county, texas harris county, texas Tarrant county, texas travis county, texas

Aggregations

Alias ... One value per line ...

75+ <300%: COLUMNS in (B17024) 75 years and over->Under .50, (B17024) 75 years and over->.50 to .74, (B17024) 75 years and over->.75 to .99, (B17024) 75 years and over->1.00 to 1.24, (B17024) 75 years and over->1.25 to 1.49, (B17024) 75 years and over->1.50 to 1.74, (B17024) 75 years and over->1.75 to 1.84, (B17024) 75 years and over->1.85 to 1.99, (B17024) 75 years and over->2.00 to 2.99

Percentage Denominator

(B17024) 75 years and over

Query

```
COUNTY_B17024.B17024_119E AS '(B17024) 75 years and over',
ROUND((COUNTY_B17024.B17024_119E * 100) / COUNTY_B17024.B17024_119E,2) AS '(B17024) 75 years and over (PCT)'
```



COUNTY NAME	(B17024) 75 years and over	(B17024) 75 years and over (PCT)	(B17024) 75 years and over (MOE)	75+ <300%	75+ <300% (PCT)	75+ <300% (MOE)
Bexar County, Texas	82269	100.00	396	45548	55.36	1467
Collin County, Texas	27474	100.00	206	12012	43.72	882
Dallas County, Texas	92822	100.00	519	52546	56.61	1486
El Paso County, Texas	40104	100.00	252	28082	70.02	1170
Harris County, Texas	147135	100.00	460	82014	55.74	2116
Tarrant County, Texas	72512	100.00	449	38106	52.55	1359
Travis County, Texas	34313	100.00	318	14207	41.40	799

## Another use case

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- Need to know lower-income kids who might need child care
- <300% FPL, but break out <185% (Medicaid income-eligible)
- Eastside Promise and Wheatley Choice Neighborhoods

Dataset  
2015 ACS 5-year

Geography  
ZCTA

Concept  
B17024

- Available Variables
- Filter ...
- (B17024) 6 to 11 years->.75 to .99
  - (B17024) 6 to 11 years->1.00 to 1.24
  - (B17024) 6 to 11 years->1.25 to 1.49**
  - (B17024) 6 to 11 years->1.50 to 1.74
  - (B17024) 6 to 11 years->1.75 to 1.84
  - (B17024) 6 to 11 years->1.85 to 1.99
  - (B17024) 6 to 11 years->2.00 to 2.99
  - (B17024) 6 to 11 years->3.00 to 3.99
  - (B17024) 6 to 11 years->4.00 to 4.99
  - (B17024) 6 to 11 years->5.00 and over
  - (B17024) 12 to 17 years
  - (B17024) 12 to 17 years->Under .50**
  - (B17024) 12 to 17 years->.50 to .74**
  - (B17024) 12 to 17 years->.75 to .99**
  - (B17024) 12 to 17 years->1.00 to 1.24**

Data Filters

Select a variable ... is Value ...

B17024\_ZCTA in 78202 78203 78208

Percentage Denominator

Disabled

- Selected Variables
- Filter ...
- ZCTA

Aggregations

Alias ... One value per line ...

Under 12 <185%: COLUMNS in (B17024) Under 6 years->Under .50, (B17024) Under 6 years->.50 to .74, (B17024) Under 6 years->.75 to .99, (B17024) Under 6 years->1.00 to 1.24, (B17024) Under 6 years->1.25 to 1.49, (B17024) Under 6 years->1.50 to 1.74, (B17024) Under 6 years->1.75 to 1.84, (B17024) 12 to 17 years->Under .50, (B17024) 12 to 17 years->.50 to .74, (B17024) 12 to 17 years->.75 to .99, (B17024) 12 to 17 years->1.00 to 1.24, (B17024) 12 to 17 years->1.25 to 1.49, (B17024) 12 to 17 years->1.50 to 1.74, (B17024) 12 to 17 years->1.75 to 1.84

Under 12 185-299%: COLUMNS in (B17024) Under 6 years->1.85 to 1.99, (B17024) Under 6 years->2.00 to 2.99, (B17024) 12 to 17 years->1.85 to 1.99, (B17024) 12 to 17 years->2.00 to 2.99

Pop under 12: COLUMNS in (B17024) Under 6 years, (B17024) 12 to 17 years

EPN+CNI ZCTAs: ZCTA in ('78202', '78203', '78208')

Query

```
SELECT  
ZCTA_B17024.B17024_ZCTA AS 'ZCTA',
```

ZCTA	Under 12 <185%	Under 12 <185% (MOE)	Under 12 185-299%	Under 12 185-299% (MOE)	Pop under 12	Pop under 12 (MOE)
78202	2181	419	206	133	2477	391
78203	921	279	188	119	1182	273
78208	462	146	47	36	518	125
EPN+CNI ZCTAs	3564	524	441	182	4177	493

# Next steps

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Usability testing in summer 2018; build out further in fall

- Add census tract geography and additional ACS datasets
- Percent MOE calculations
- Save filter lists
- Enable saving queries and filters as private or public
- Whatever other priorities come out of testing
- Fix bugs and rough edges

Public launch in late 2018/early 2019 with press and training

If well-received, seek funding for further development and training

You're doing the hard work of  
changing our community for the better.

**How can we help you?**

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