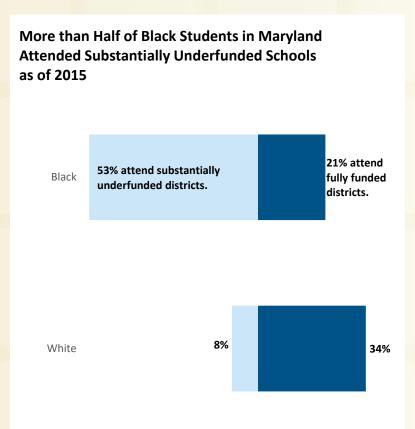
Data Analysis for Budget Advocacy

Christopher Meyer, Research Analyst
A Blueprint for Broadly Shared Prosperity in Maryland
Owen Brown Interfaith Center, Columbia, MD
July 28, 2018



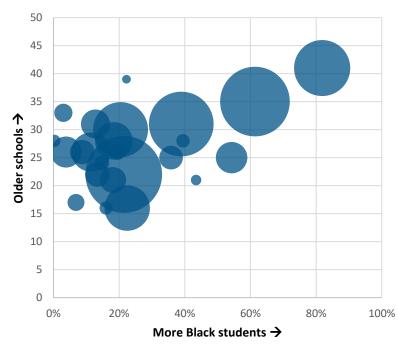


Documenting a Disparity



Schools in Predominantly Black Districts Are Older, on Average

Square footage-weighted average age of school buildings in years by percent of students who are Black, 2015–2016 school year



Source: MDCEP analysis of DLS funding adequacy data, Department of Management and Budget Managing for Results data on school construction, and National Center for Education Statistics data on enrollment by race.



Documenting the Size of a Problem

- 363,000 Marylanders went without health insurance in 2016.
- Black workers in southern Prince George's County spend 55 more hours commuting each year than their white neighbors.



Documenting Change Over Time

Maryland's Bridge to Excellence Law: A Story of Progress and Retreat



2004: When the state began phasing in the Bridge to Excellence formula, only 4 Maryland school districts were fully funded.

2008: After six years of consistent funding, 23 school districts were fully funded.

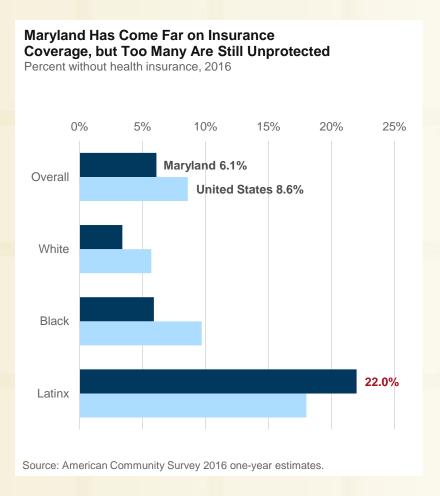




2015: After seven straight years of cuts, only 6 districts were still fully funded.







- Providing context
- Understanding the contours of a problem
- Establishing credibility

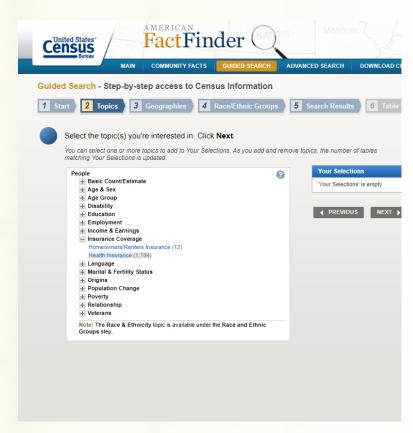


Data Sources



American FactFinder

- https://factfinder.census.gov/
- American Community Survey
 - 3 million respondents per year
 - Income, employment, and poverty
 - Gender, age, education, race and ethnicity
 - Housing, health insurance, commuting ...
 - Much more
- Population Estimates
- (Relatively) user friendly





Department of Budget and Management

- http://dbm.maryland.gov/budget/Pages/operbudhome.aspx
- Fiscal Digest: Current year's enacted budget
- Budget Highlights (proposed budget)
 - Narrative includes high-level budget numbers (plus lots of PR)
 - Appendix C: Detailed current year enacted budget and proposed budget
 - Appendix H: Detailed proposed contingent cuts (which can be restored by the legislature)
 - Appendix L: High-level breakdown of federal funds
- Budget books
 - Highly detailed breakdown of proposed budget
 - Includes current enacted budget and prior-year act spending
 - Detail on local aid
 - Detailed federal funding sources
- Historical budget documents



Budget

- > Capital Budget
- > Operating Budget
- > Budget Hearing Testimony
- Citizens Guide to the Budget

Operating Budget

FY 2019 Fiscal Digest

Proposed (FY 2019) Budget Documents

FY 2019 Supplemental Budget #3

TX FY 2019 Supplemental Budget #2

TX FY 2019 Supplemental Budget #1

Budget Highlights

Proposed Operating Budget Detail (Budget Books):

- Volume I (10.6MB)
- Volume II (7.6MB)
- Volume III (8.75 MB)
- Download FY19 Budget Book Volume I, II, III
 Zip File (22.3 MB)

Proposed Operating Budget Detail by Agency



Department of Legislative Services

- http://dls.maryland.gov/
- Budget analysis
 - http://mgaleg.maryland.gov/webmga/frmbgtnfiscal.aspx?pid=b nfpage&stab=01&id=sk001_tab01&tab=subject4&ys=2018RS
 - Trends, context, explanatory information, recommendations
- Fiscal and policy notes
 - Found on individual bill pages
 - Explanation of current law and how a bill would change it
 - Estimated spending and revenue impacts
 - Policy impacts (sometimes)
- Publications archive
 - http://dls.maryland.gov/publications/
 - State spending trends, local government finances, tax credit evaluations ...
 - Much more

Analysis in Brief

Major Trends

Partnership for Assessment of Readiness for College and Careers Results Relatively Level: Partnership for Assessment of Readiness for College and Careers (PARCC) assessments were administered for the third time during the 2016-2017 school year. In total, 41% of students across all exams demonstrated readiness in English/language arts (ELA), a 1.6 percentage point increase over the previous year. Scores for mathematics were lower, with 33.6% of students statewide demonstrating readiness, which was about the same as the previous year. The Maryland State Department of Education (MSDE) should update the committees on which local education agencies (LEA) are administering PARCC for optional grades and subjects, such as grade 9 ELA and Geometry. MSDE should also update the committees on the State's timeline for achieving the goal that students are college and career ready when leaving high school.

Graduation Rate Slows in Growth: Cohort graduation rates indicate that an increasing number of Maryland students are graduating on time each year, though the growth has slowed recently. The four-year adjusted cohort graduation rate for the class of 2017 was 87.7%, which amounts to a 0.1 percentage point increase over the class of 2016 rate.

Issues

State Aid to Education: Under current law, public schools are expected to receive \$6.5 billion in funding from the State in fiscal 2019, representing a \$157 million (2.5%) increase over the prior fiscal year. The largest increases can be attributed to the Foundation program, funding for students with limited English proficiency, net taxable income grants, and supplemental grants that allow all LEAs to receive an increase in direct education aid. Reductions contingent on the BRFA of 2018 seek to reduce the fiscal 2019 appropriation by \$19.3 million.

Commission on Innovation and Excellence in Education Requests Extension: The Commission on Innovation and Excellence in Education has submitted a preliminary report with recommendations arranged around five policy areas. The commission has also requested an additional year to fully respond to its charge and "cost out" its recommendations. Legislation has been introduced that would extend the commission's deadline while also implementing several of its preliminary

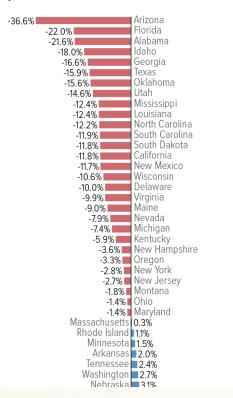


CBPP State Fiscal Project

- https://www.cbpp.org/topics/state-budgetand-tax
- Annually updated reports on state budget trends, frequently including data tables
- High-quality analysis and policy recommendations
- Taxes, education, food assistance, federal aid ...
- Much more

Total State K-12 Funding Below 2008 Levels in Most States

Percent change in total state funding per student, inflation adjusted, fiscal years 2008-2015





Topic-Specific Data Sources

Health

- Maryland Vital Statistics (https://health.maryland.gov/vsa/Pages/reports.aspx)
- CDC (https://www.cdc.gov/datastatistics/index.html)
- County Health Rankings (http://www.countyhealthrankings.org/explore-health-rankings/use-data)

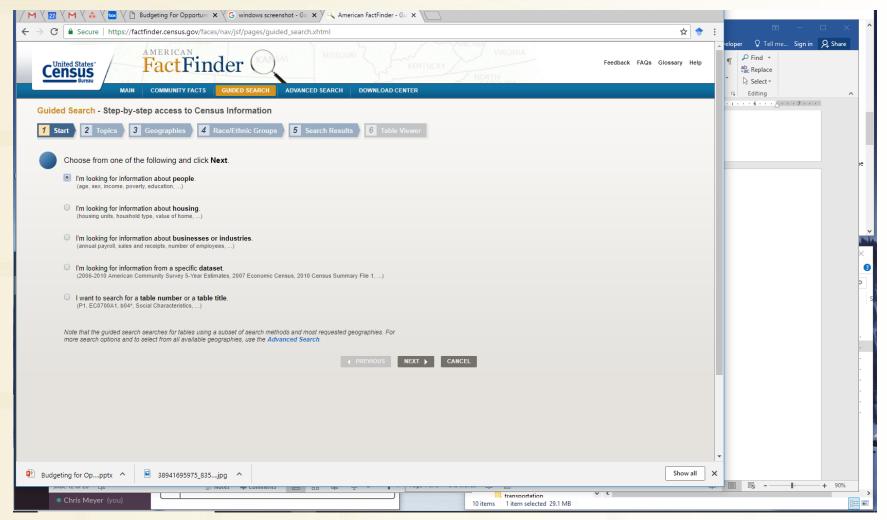
Education

- MSDE Selected Financial Data (http://www.marylandpublicschools.org/about/Pages/DBS/SFD/index.aspx)
- Maryland Report Card data downloads
 (http://reportcard.msde.maryland.gov/downloadindex.aspx?K=99AAAA)
- National Center for Education Statistics Common Core of Data
 - Data downloads—for complex analyses (https://nces.ed.gov/ccd/ccddata.asp)
 - Online tools—for simpler analyses (<u>https://nces.ed.gov/ccd/elsi/)</u>
 - Best data source for student race and ethnicity

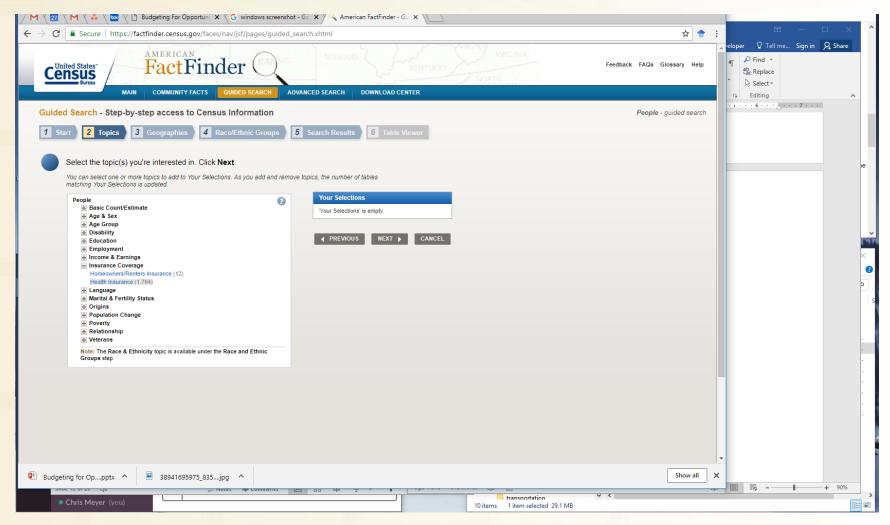




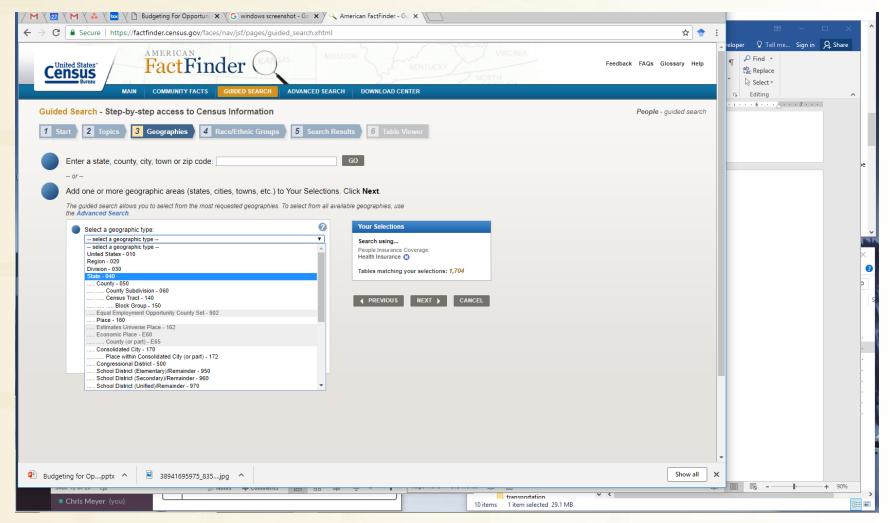




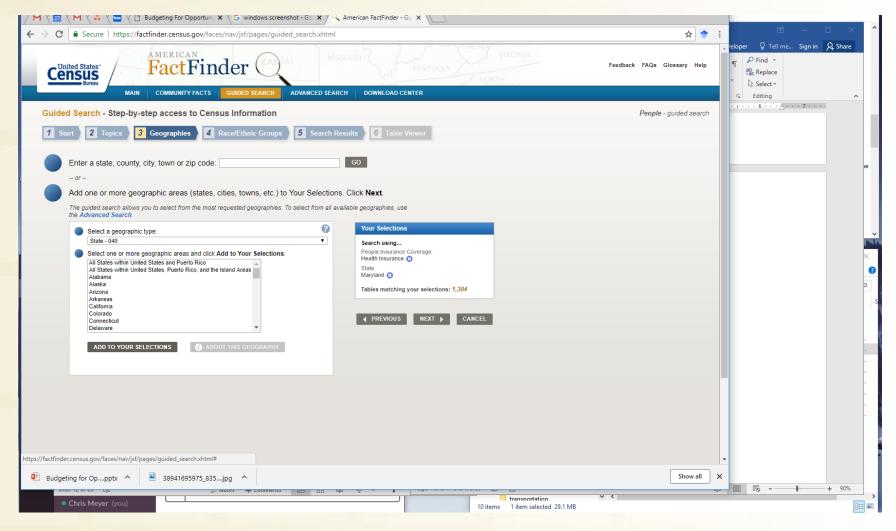




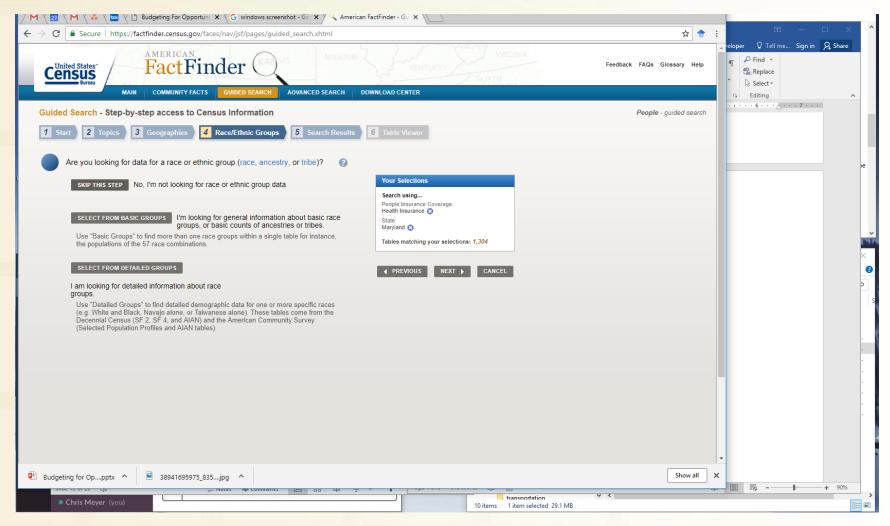




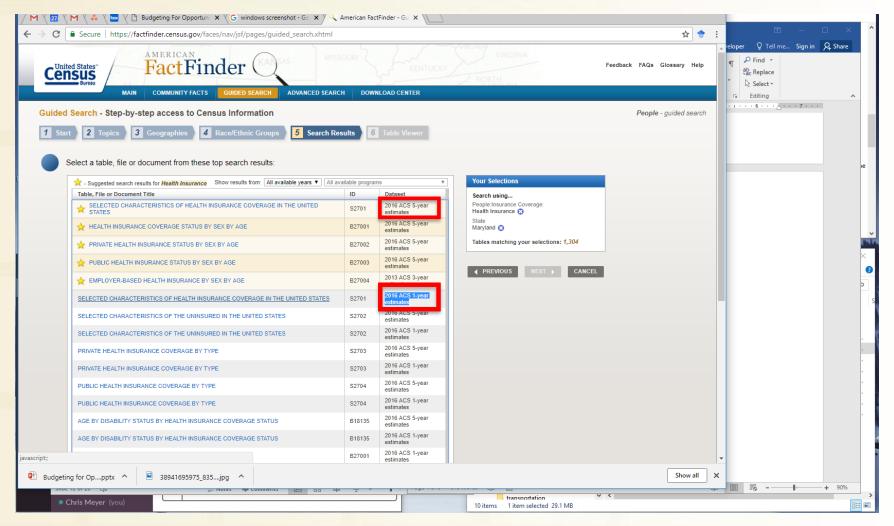




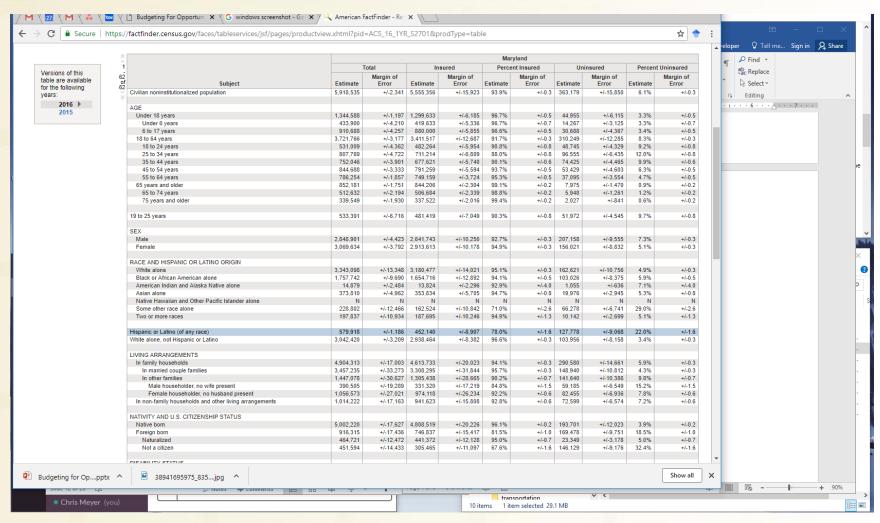




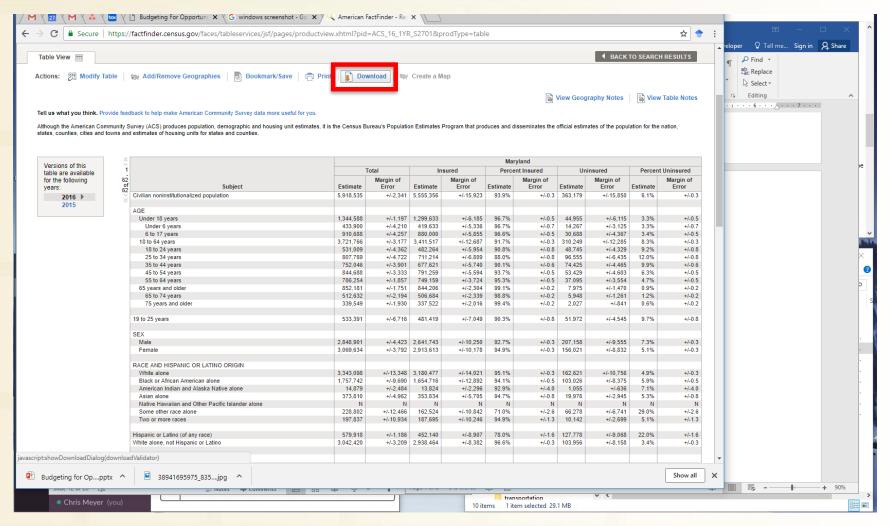




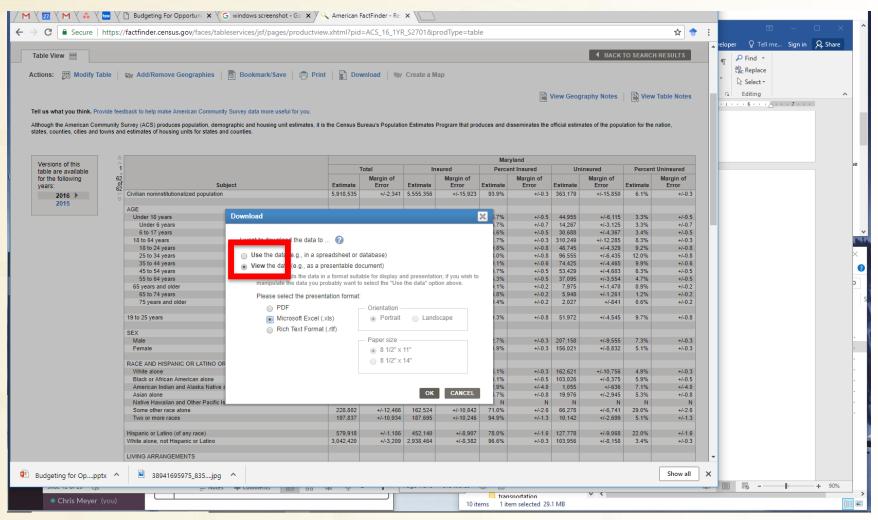




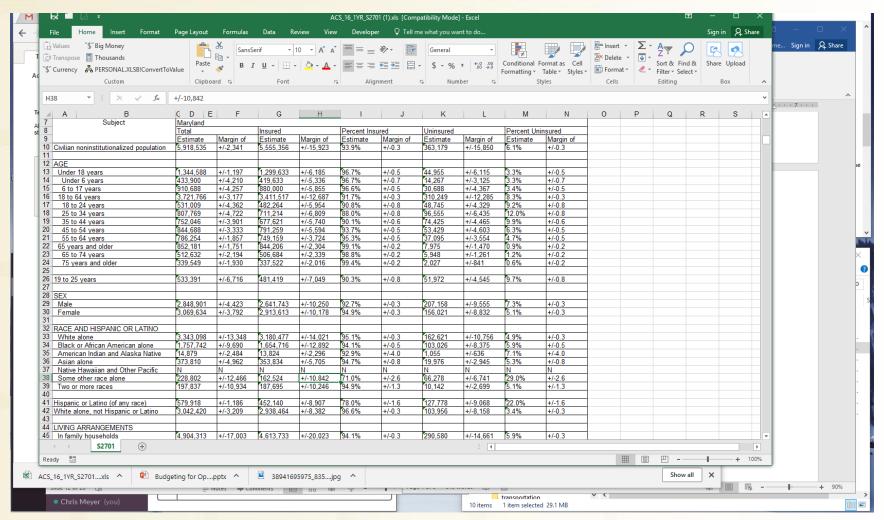














Analyzing Data

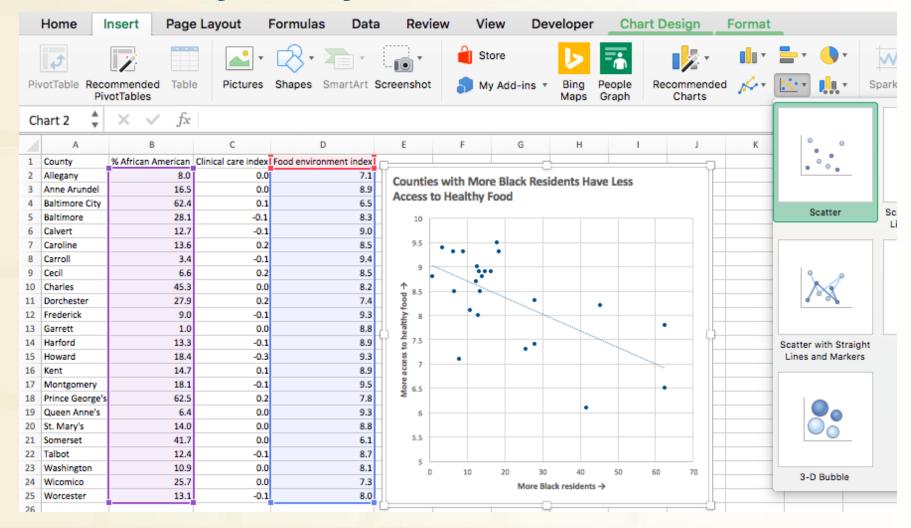


Easiest Case: Read the Table

		Maryland								
	Т	Total		Insured		Percent Insured		insured	Percent Uninsured	
Subject	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margi Erro	Estimate	Margin of Error
Civilian noninstitutionalized population	5,918,535	+/-2,341	5,555,356	+/-15,923	93.9%	+/-0.3	363,179	+/-	0 6.1%	+/-0.3
AGE										
Under 18 years	1,344,588	+/-1,197	1,299,633	+/-6,185	96.7%	+/-0.5	44,955	+,	5 3.3%	+/-0.5
Under 6 years	433,900	+/-4,210	419,633	+/-5,336	96.7%	+/-0.7	14,267	+/	5 3.3%	+/-0.7
6 to 17 years	910,688	+/-4,257	880,000	+/-5,855	96.6%	+/-0.5	30,688	+/	7 3.4%	+/-0.
18 to 64 years	3,721,766	+/-3,177	3,411,517	+/-12,687	91.7%	+/-0.3	310,249	+/-	5 8.3%	+/-0.
18 to 24 years	531,009	+/-4,362	482,264	+/-5,954	90.8%	+/-0.8	48,745	+/	9 9.2%	+/-0.8
25 to 34 years	807,769	+/-4,722	711,214	+/-6,809	88.0%	+/-0.8	96,555	+/	5 12.0%	+/-0.
35 to 44 years	752,046	+/-3,901	677,621	+/-5,740	90.1%	+/-0.6	74,425	+/	5 9.9%	+/-0.
45 to 54 years	844,688	+/-3,333	791,259	+/-5,594	93.7%	+/-0.5	53,429	+/	3 6.3%	+/-0.
55 to 64 years	786,254	+/-1,857	749,159	+/-3,724	95.3%	+/-0.5	37,095	+/	4 4.7%	+/-0.
65 years and older	852,181	+/-1,751	844,206	+/-2,304	99.1%	+/-0.2	7,975	+/	0 0.9%	+/-0.
65 to 74 years	512,632	+/-2,194	506,684	+/-2,339	98.8%	+/-0.2	5,948	+/	1 1.2%	+/-0.
75 years and older	339,549	+/-1,930	337,522	+/-2,016	99.4%	+/-0.2	2,027		1 0.6%	+/-0.
19 to 25 years	533,391	+/-6,716	481,419	+/-7,049	90.3%	+/-0.8	51,972	+/	5 9.7%	+/-0.
SEX										
Male	2,848,901	+/-4,423	2,641,743	+/-10,250	92.7%	+/-0.3	207,158	+/	5 7.3%	+/-0.
RACE AND HISPANIC OR LATINO ORIGIN										
White alone	3.343.098	+/-13.348	3.180.477	+/-14.021	95.1%	+/-0.3	162.621	+/-	6 4.9%	+/-0.
Black or African American alone	1,757,742	+/-9.690	1.654.716	+/-12.892	94.1%	+/-0.5	103,026	+/	5 5.9%	+/-0.
American Indian and Alaska Native alone	14,879	+/-2,484	13,824	+/-2,296	92.9%	+/-4.0	1,055		6 7.1%	+/-4.
Asian alone	373,810	+/-4,962	353,834	+/-5,705	94.7%	+/-0.8	19,976	+/	5 5.3%	+/-0.
Native Hawaiian and Other Pacific Islander alone	N	N	N	N	N	N	N		N N	
Some other race alone	228.802	+/-12.466	162.524	+/-10.842	71.0%	+/-2.6	66.278	+/	1 29.0%	+/-2.
Two or more races	197.837	+/-10.934	187,695	+/-10,246	94.9%	+/-1.3	10,142	+/	9 5.1%	+/-1.
	121,007		,	,			,		2.7.76	
White alone, not Hispanic or Latino	3.042.420	+/-3 209	2.938.464	+/-8.382	96.6%	+/-0.3	103,956	+		



Pretty Easy Case: Make a Chart





A Little More Work: Math

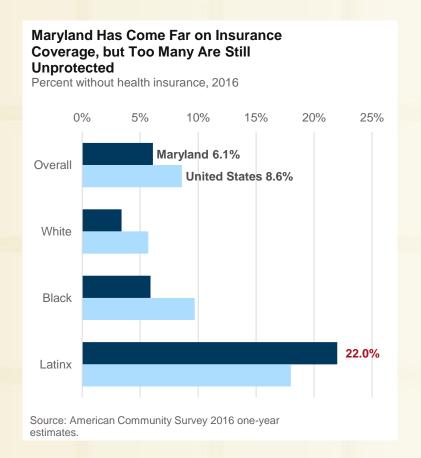
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19	\$ × ~	f_{x}										
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1	District	Funding Adequacy	Adequacy >= 95%?	Adequacy < 85%?	# Black students							
2	Allegany	89%	FALSE	FALSE	279				Result	Formula		
3	Anne Arundel	91%	FALSE	FALSE	16,197		Total # B	lack students	302,263	=SUM(E2:E2	5)	
4	Baltimore City	82%	FALSE	TRUE	70,234		# Black s	tudents >= 95%	63,280	=SUMIF(C2:C	25, TRUE, E2	2:E25)
5	Baltimore County	86%	FALSE	FALSE	42,581		# Black s	tudents < 85%	158,737	=SUMIF(D2:0	D25, TRUE, E	2:E25)
6	Calvert	106%	TRUE	FALSE	2,160							
7	Caroline	78%	FALSE	TRUE	846		% Black s	students >= 95%	0.21	=H4/\$H\$3		
8	Carroll	101%	TRUE	FALSE	973		% Black s	students < 85%	0.53	=H5/\$H\$3		
9	Cecil	86%	FALSE	FALSE	1,358							
10	Charles	95%	TRUE	FALSE	13,973							
11	Dorchester	81%	FALSE	TRUE	1,878							
12	Frederick	93%	FALSE	FALSE	4,655							
13	Garrett	94%	FALSE	FALSE	10							
14	Harford	89%	FALSE	FALSE	6,788							
15	Howard	121%	TRUE	FALSE	11,748							
16	Kent	95%	FALSE	FALSE	474							
17	Montgomery	97%	TRUE	FALSE	33,139							
18	Prince George's	75%	FALSE	TRUE	79,915							
19	Queen Anne's	90%	FALSE	FALSE	545							
20	Saint Mary's	89%	FALSE	FALSE	3,273							
21	Somerset	86%	FALSE	FALSE	1,264							
22	Talbot	81%	FALSE	TRUE	744							
23	Washington	86%	FALSE	FALSE	2,822							
24	Wicomico	80%	FALSE	TRUE	5,120							
25	Worcester	115%	TRUE	FALSE	1,287							

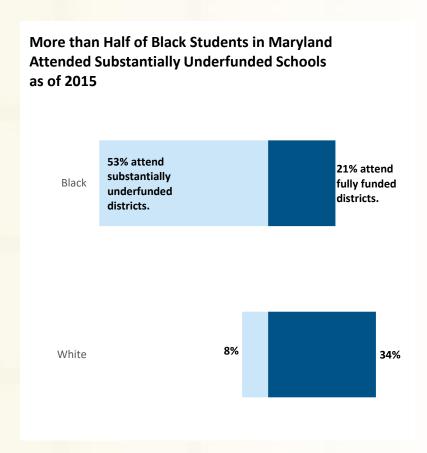


Presenting Data



Making Comparisons



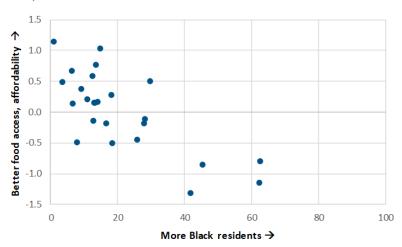




Showing Relationships

Food Access and Affordability Worse in Predominantly Black Counties

County He alth Rankings Food Environment Index, income a djusted, by county % Black



Schools in Predominantly Black Districts Are Older, on Average Square footage-weighted average age of school buildings in years by percegn of students who are Black, 2015–2016 school year 45 40 35 10 5 0 20% 40% 60% 80% 100% More Black students →



Telling a Story

Maryland's Bridge to Excellence Law: A Story of Progress and Retreat



2004: When the state began phasing in the Bridge to Excellence formula, only 4 Maryland school districts were fully funded.

2008: After six years of consistent funding, 23 school districts were fully funded.





2015: After seven straight years of cuts, only 6 districts were still fully funded.

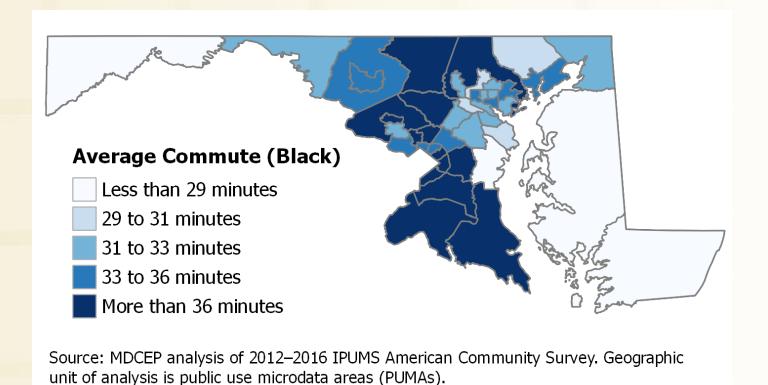


The Big Number

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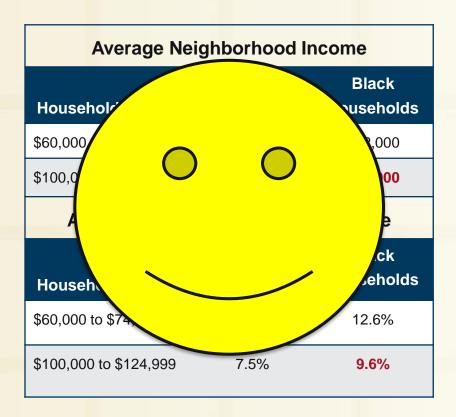


Everybody Loves Maps





Getting Into the Weeds







Best Practices

- Cite your sources.
- Be ready to explain how you did it.
- Be precise when talking about correlations.



Getting Help

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410-412-9105 mdcep@mdeconomy.org

