Data Sources for Youths 0 to 8 Years Old

Cambridge 0-8 Council September 21, 2010

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The American Community Survey

- The American Community Survey (ACS) replaces the Census Bureau's long form questionnaire, used to collect socioeconomic data about persons and households as part of the decennial census.
- The ACS surveys 1 in 40 households each year, over 5 years 1 in 8 households. In contrast, the decennial census long form surveyed 1 in 6 households.
- ACS data is released in 1, 3 and 5 year increments. In 2010 the Bureau will use ACS to make detailed socioeconomic information available down to the blockgroup level on an annual basis.
- Places with more than 65,000 residents including Cambridge have new ACS data released every year, as well as three and five year estimates.
- Places with 20,000 or more residents have estimates released every 3 and 5 years.
- Smaller places, including all census tracts and blockgroups, have estimates released every 5 years

ACS - Margin of Error Matters

- Because the ACS is a survey with more limited sampling than the long form Census questionnaire, all ACS data is released with 10% margins of error.
- A variety of factors affect the magnitude of the margin of error
 - The bigger the sample the smaller the margin of error
 - The smaller the estimated subgroup, the bigger the margin of error
- The end user should view ACS estimates as ranges with confidence intervals, rather than specific points.

	Value	10% MOE	Range		
Less Than HS	5.1%	1.4%_	3.7%	6.5%	
HS or Equal	13.7%_	2.9%	10.8%	16.6%	
Some College	10.8%	2.3%	8.5%	13.1%	
Bachelors or Higher	70.4%	6.7%	63.7%	77.1%	

• Question now – Not whether there is a difference but when is a difference statistically significant?

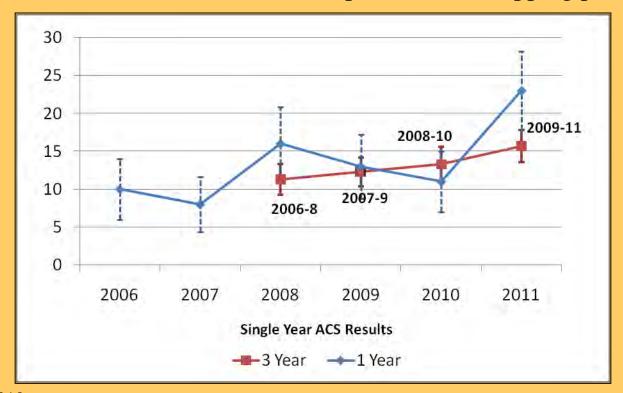
ACS – Is the Change Significant?

	2000	Census	2007		
	Value	10% MOE	Value	10% MOE	Z Value
Less Than					
High School	10.4%	0.6%	5.1%	1.4%	5.73
High School or					
Equal	12.2%	0.6%	13.7%_	2.9%	0.84
Some College					
or Associates	12.2%	0.6%	10.8%	2.3%	0.96
Bachelors or					
Higher	65.2%	1.0%	70.4%	6.7%	1.26

- The only difference here that is statistically significant is the difference between those with less than a high school education in 2000 and 2007.
- For that item the Z value, which is a test of statistical significance, is greater than 1.645. When Z exceeds 1.645 you can state that there is a 90% chance the difference is real and not an artifact of sampling.
- Spreadsheet with statistical tests: http://www.trbcensus.com/notes/StatisticalCalculationsMenu.xls

Which ACS Data Set to Use?

- 1 year ACS more timely but less accurate, 3 and 5 year more like a lagging indicator of change, trade off of frequency versus reliability of data
- Overlapping time periods will correlate since they share some of the same data, this can provide a false picture of lack of statistically significant differences. Better to compare non-overlapping periods



Comparing ACS Data - Dos & Don'ts

- Comparing ACS estimates
 - Take into account Margin of Error. Test for statistically significant differences
 - Don't make a big deal about small differences
 - Look at the trend, is it worth watching?
 - Do related measures move in parallel? (e. g. poor children and poverty rate, Hispanic origin and speak Spanish at home)
 - If you compare areas do so over the same time period
 - Don't compare data for an area using overlapping periods
- Comparing Census 2000 and ACS Some topics are best compared with caution or not at all:
 - http://www.census.gov/acs/www/UseData/compACS.htm
- Bottom Line: There is a lot more to think about than in the good old days

Census Population Estimates Program

- Estimates are based on a variety of sources
 - The household population derives from births, deaths, IRS tax returns and Medicare enrollment as well as ACS data on international immigration
 - The group quarters population derives from 2000 Census data and a group quarters registry maintained by each state
- Produced annually by Census Bureau
- Each year's estimate is a different "vintage"
- "Vintages" can show significant differences from one another, so always try to use the most recent estimate available
- Local area estimates are released on July 1 of every year.
- Local area estimates are for total population only
- Estimates for larger areas such as counties and states include estimates by age, race, sex and Hispanic origin, as well a housing unit estimate

Cambridge Population Estimates

	2009 Vintage	2008 Vintage	2007 Vintage	2008 -2007 Difference	2009-2007 Difference
2009	108,771				
2008	107,881	105,596			
2007	106,238	104,026	101,388	2,638	4,850
2006	104,462	102,720	101,396	1,324	3,066
2005	103,812	102,273	100,375	1,898	3,437
2004	103,248	101,853	101,059	794	2,189
2003	103,234	101,908	101,753	155	1,481
2002	104,220	102,961	102,317	644	1,903
2001	103,989	102,742	102,501	241	1,488
2000	101,683	101,643	101,613	30	70

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How ACS and Estimates Relate

- ACS figures at county level are controlled to the latest Census Bureau population estimate for calendar year in which the ACS data is released.
- Sub-county estimates are not controlled to the sub-county population estimates. At sub-county level the county population is apportioned based on the share counted by the ACS. This process leads to incorrect estimation of population.

Census 2000	101,355
2008 Population Estimate - vintage 2008	105,596
2008 Population Estimate - vintage 2009	107,881
2008 ACS	96,695
2006-2008 ACS	93,635

 ACS data is more useful when looking at measures of characteristics, such as proportions, or figures that do not relay on population counts, like median income or average household size.

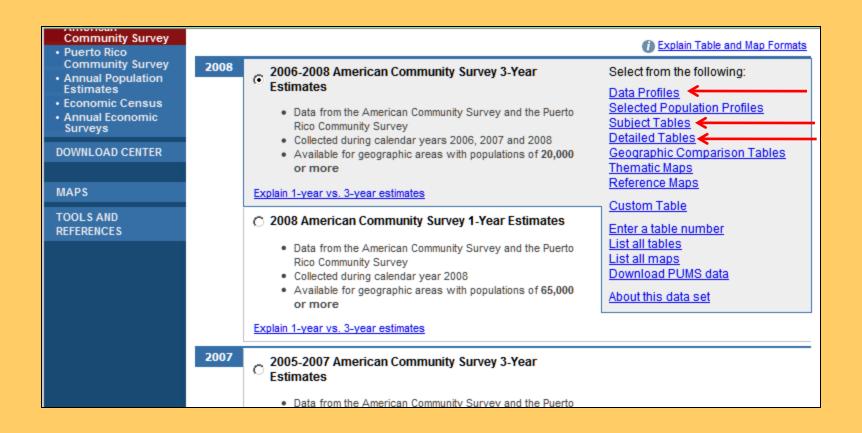
Where to Find ACS Data and Estimates

- Both ACS data and population estimates are available through the Census Bureau's American Factfinder web site:
- http://factfinder.census.gov/home/saff/main.html?_lang=en
- The Factfinder website is a good resource for other Census data sets, including the decennial census.
- There are several different types of data tables available from the ACS: Data Profiles, Subject Tables and Detailed Tables.
- For more information about the ACS:
 - Census Bureau ACS web site:
 http://www.census.gov/acs/www/index.html
 - http://mcdc2.missouri.edu/pub/data/acs/Readme.shtml
 - http://mcdc2.missouri.edu/pub/data/acs/prbThe_American_Community.pdf

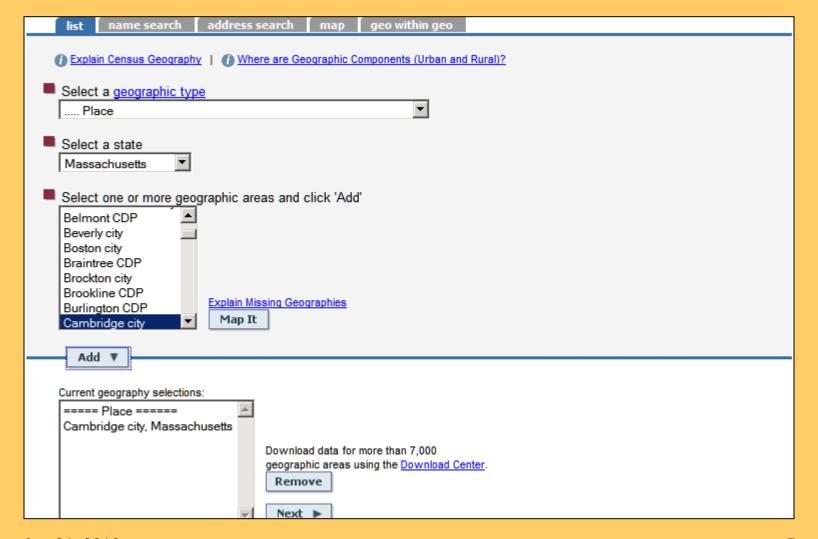
Census Bureau's American Factfinder Home Page



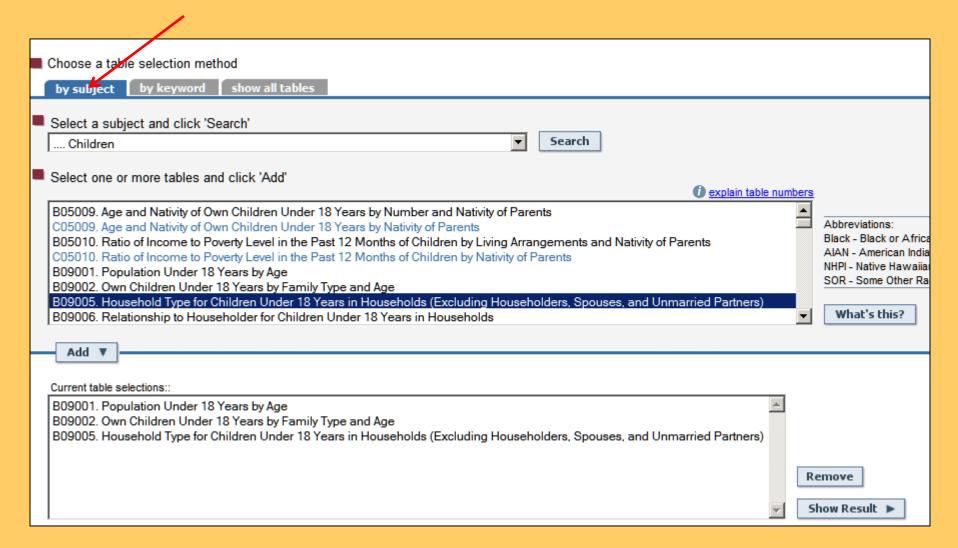
Census Bureau's American Factfinder Table Selection



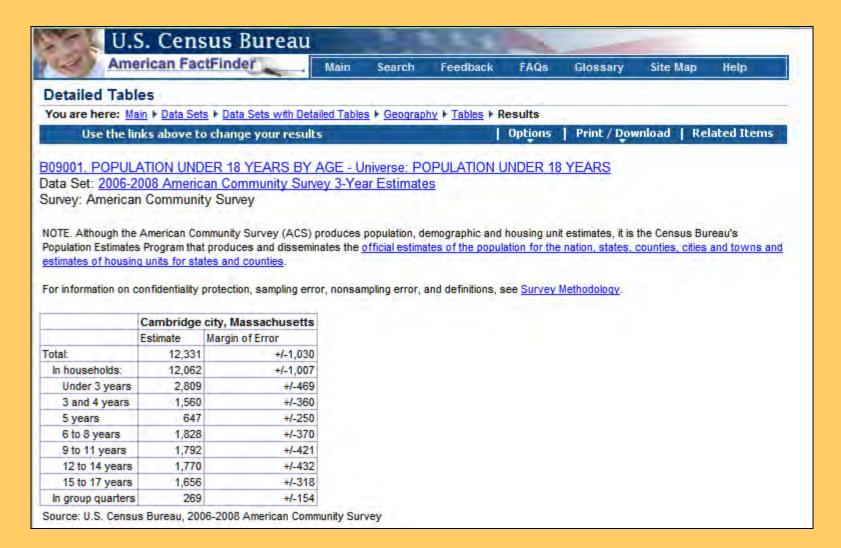
Census Bureau's American Factfinder Geography Selection



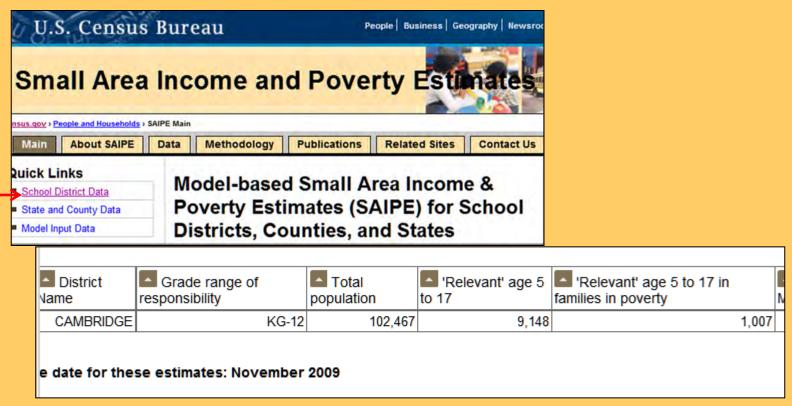
Census Bureau's American Factfinder Table Selection



Census Bureau's American Factfinder Table View



Census Bureau – SAIPE Program



- The **Small Area Income and Poverty Estimates** (SAIPE) program to provide more current estimates of selected income and poverty statistics than those from the most recent decennial census.
- http://www.census.gov/did/www/saipe/

Census Bureau – Sample Data

- While the ACS releases complied tables showing the results for particular topics, PUMS data consists of a series of individual records that can be used to create your own tables not otherwise available from the ACS or decennial census.
- These are referred to as PUMS tables. PUMS stands for Public Use Microdata Sample
- An example: <u>Number of Vehicles Owned x Number of Bedrooms</u>
- This is not a table included in ACS but a question we wanted to answer.
- PUMS Data Sources
 - Census Bureau DataFerrett: http://dataferrett.census.gov/
 - IPUMS: http://usa.ipums.org/usa/sda/

Employment Statistics

- Compiled and distributed by Massachusetts Executive Office of Labor and Workforce Development and drawn from unemployment insurance data.
 - http://tinyurl.com/MassLaborStats
- Several types of data are available.
- Labor Force/Unemployment Rates

Month	Year	Labor Force	Employed	Unemployed	Area Rate	Massachusetts Rate
July	2010	61,980	57,916	4,064	6.6	9.1
June	2010	61,723	57,703	4,020	6.5	8.8
May	2010	60,310	56,691	3,619	6.0	9.1
April	2010	60,251	56,757	3,494	5.8	9.1
March	2010	59,986	56,845	3,141	5.2	9.3
February	2010	59,648	56,313	3,335	5.6	10.0
January	2010	59,748	56,078	3,670	6.1	10.4

• ES202/Occupational Employment and Wages

NAICS	Description	No. of Establish- ments	Jan Emp	Feb Emp	Mar Emp	Apr Emp	May Emp	Jun Emp	Jul Emp	Aug Emp	Sep Emp	Oct Emp	Nov Emp	Dec Emp	Total Wages	_	Average Weekly Wages
6244	Child Day Care Services	40	605	612	609	591	603	585	582	548	580	594	596	604	\$17,333,173	591	\$564

- Occupational Wage Data
- Job Vacancy Surveys

Public Health - MassCHIP

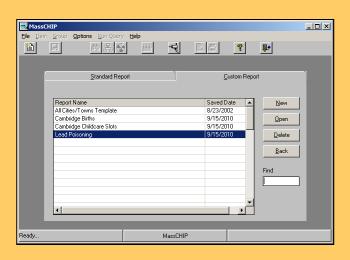
- A source of health and social indicators for cities and towns
- Maintained by Mass. Dept. of Public Health
- Requires establishing an account and installation of custom software program. Both are free.
- http://www.mass.gov/dph/masschip
- Two types of data: custom tables and "Instant Topics"
- Examples of Instant Topics:
- Kids Count

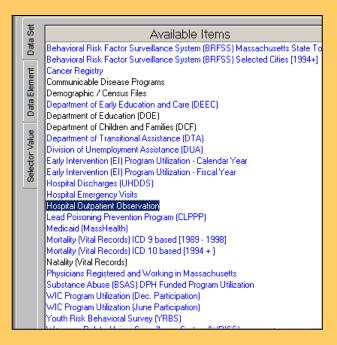
http://www.mass.gov/Eeohhs2/docs/dph/masschip/kids_count/kidscountcity_towncambridge.rtf

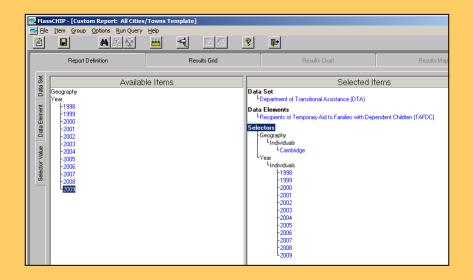
- Health Status Indicators
 - http://www.mass.gov/Eeohhs2/docs/dph/masschip/health_indicators/hsicity_towncambridge.rtf
- Maternal and Child Health Objectives

http://www.mass.gov/Eeohhs2/docs/dph/masschip/healthy_people_maternal/healthypeople2010maternalchildcity_towncambridge.rtf

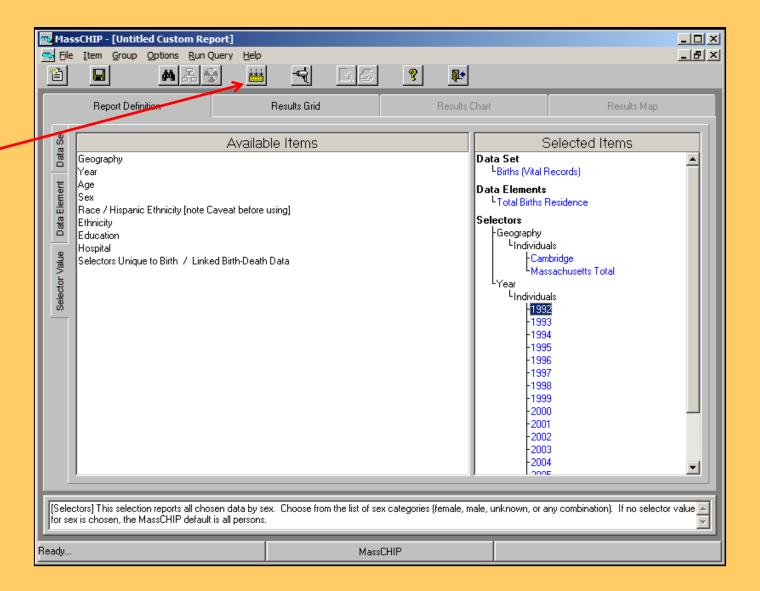
MassCHIP Custom Tables



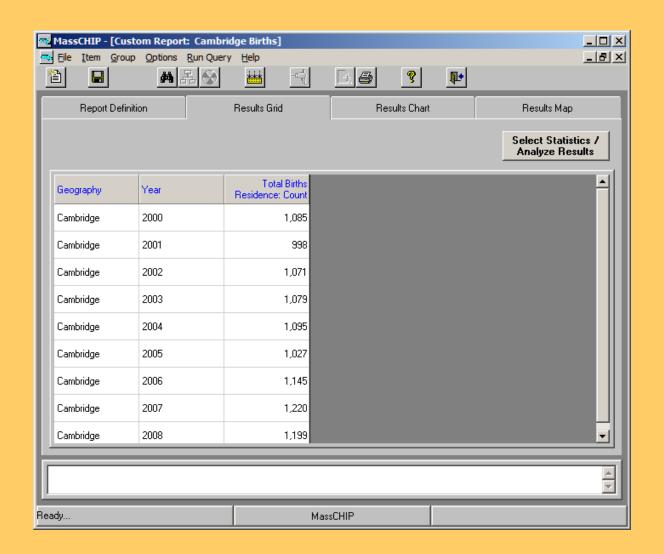




MassCHIP Custom Table Example



MassCHIP Custom Table Example



CHA - Public Housing

- CHA Moving to Work Plan and Annual Report
 - http://cambridge-housing.org/About-the-CHA/Moving-to-Work.aspx
- CHA Development Directory
 - http://www.cambridge-housing.org/For-Applicants/Development-Directory.aspx
- **HUDuser.org**: A Picture of Subsidized Households
 - http://www.huduser.org/portal/picture2008/index.html

A Picture of Subsidized Households - 2008

Picture of Subsidized Households describes the nearly 5 million households living in HUD-subsidized housing in the United States for the year 2008. Picture 2008 provides characteristics of assisted housing units and residents, summarized at the national, state, public housing agency (PHA), project, census tract, county, Core-Based Statistical Area and city levels. More about this report.

New for 2008: Core-Based Statistical Areas have replaced the Metropolitan Statistical Area (MSA) summary level in previous Picture reports. Public Housing Developments are now reported using the new Asset Management Project (AMP) codes rather than the older Development Code. Moving to Work (MTW) housing authorities were required to report their tenant data in 2008.

Also in this release: you can create custom queries of the Picture data by geography and by HUD program, and retrieve exactly the data you need (see steps 1-5). Or, you can download complete summary files (see Download section below). You also may export Picture data to your Geographic Information System (GIS) software for mapping (see GIS section below).

Early Childhood Education

- Early Childhood Education Data by Town
 - http://www.eec.state.ma.us/docs1/research_planning/cities_towns_data.pdf
- Massachusetts Child Care Market Rate Survey (2008)
 - http://www.mass.gov/Eeoe/docs/EEC/research_planning/state_planning/mark etratesurvey2008.pdf
- National Center for Education Statistics: http://nces.ed.gov
 - Digest of Education Statistics
 - National Household Education Survey
 - Fast Facts: http://nces.ed.gov/fastfacts/display.asp?id=78
- Bureau of Labor Statistics Childcare Wage Information
 - http://www.bls.gov/oco/cg/cgs032.htm
- National Association of Childcare Resource and Referral Agencies State Fact Sheets
 - http://www.naccrra.org/randd/state_by_state_facts.php
- National Child Care Information and Technical Assistance Center

http://nccic.acf.hhs.gov/poptopics/statistics.pdf

Kids Count

Kids Count

- Variety of indicators related to demographics, education health care and program participation
- http://www.aecf.org/MajorInitiatives/KIDSCOUNT.aspx
- Massachusetts State Page
 - http://datacenter.kidscount.org/data/bystate/StateLanding.aspx?state=MA
- All Massachusetts Indicators
 - http://datacenter.kidscount.org/data/bystate/chooseindicator.aspx?state=MA

Other Data Sources

- Cambridge Demographic pages
 - http://www.cambridgema.gov/cdd/data/index.html
- School District Profiles
 - http://profiles.doe.mass.edu/
- Economic Independence Calculator
 - http://www.liveworkthrive.org/research_and_tools/economic_inde
 pendence_calculator
- Federal Interagency Forum on Child and Family Statistics
 - http://childstats.gov/index.asp

Example – Adult Ed Questions

- What is the pool of Cambridge residents without a high school diploma?
- Where were they born?
- What language do they speak at home?
- What data set will provide the most current answer?
- What tools to use to get at the data?
 - American Factfinder
 - <u>IPUMS</u>