





Births, Deaths and Migration – the Three Legs of Demography

More timely doesn't mean more accurate – but we have more sources

It is relatively easy to track births and deaths (at least in the newspapers)

- The U.S. Census Bureau is not the primary source for data on **births**. The primary source is the NATIONAL CENTER FOR HEALTH STATISTICS (NCHS).
- Another source is SD Vital Statistics though it takes them some time to organize the data for us
- http://www.cdc.gov/nchs/data/statab/natfinal2001.annvol2_01
 .pdf

Note that Federal Data Sources see Race in Black and White

Table 2-1. Live Births by County of Occurrence and Place of Residence, by Race of Mother: United States, Each State and County, and Specified Urban Places of 10,000 or More, 2001

(Small figures should be interpreted with caution. Urban places are those with populations of 10,000 or more in 1990 and are incorporated unless otherwise noted. The places designated as urban other than incorporated places are special situations which are explained in the "Geographic classification" section of the Technical Appendix. Totals for each area include races other than white and black)

Area and race	Occurrence	Residence		Area and race	Occurrence	 Residence
Dewey	6	149	11	Jerauld	6	24
White	- !		H	White	6 !	24
Black	- 14			Black	- !	- 14
White	13			White	-	13
Black	- i	'	ii	Black	- i	- ii
Edmunds	1	55 [П	Kingsbury	1 1	53
White	1		H	White	1 !	52
Black	- I 2 I	- I 58 I		Black Lake	- I 61 I	- 118
White	2			White	60 I	118 116
Black	- i	- 1	ii	Black	- i	- 11
Faulk	- j		İ	Lawrence	361	239
White	- !		H	White	350 J	227
Black	- I 55 I	- I 83 I		Black	2 21	1 458
Grant White	53 53		 	White	21	458 448
Black	- 1		ii	Black	- 1	3 11
Gregory	38 j		ii	Sioux Falls, part	i	176 jj
White	32		П	White		168
Black	- !		П	Black	!	3
Haakon	-	17 15	 	Balance of county	- !	282 280
Black	-		 	Black	- :	200 II - II
Hamlin	2		ii	Lyman	1 i	67 ii
White	- 2 i		ii	White	- i	34
Black	- i		П	Black	- I	- 11
Hand	- !	37	H	McCook	2 !	78 !!
White	- !			White Black	2 [78
Black	_	67	 	McPherson	-	- 22
White	- i		ii	White	- i	22 11
Black	- i	- i	ii	Black	- i	ii
Harding	- !	13	П	Marshall	- 1	40
White	- !			White	- !	34
Black	- 484			Black	- I 83 I	- 430
White	259 I	'	 	White	80 I	387
Black	-		ii	Black	- 1	11 11
Pierre	i	167 i	ii	Mellette	1 i	31
White	i		H	White	1 1	9
Black	!		H	Black	- !	- !!
Balance of county White	- !			Miner White	- !	24 24
Wnite	-		 	White	- I - I	24
Hutchinson	79	89 I	ii	Minnehaha	3,803	2,302
White	76 i		ii	White	3,509 i	2,096
Black	<u>- i</u>	<u> </u>	П	Black	69 I	60 [[

In South Dakota, if we get data in Black and White, Arithmetic finds the American Indian births & deaths

• Dewey 149 birth

21 White

-- Black

• Therefore, we estimate 128 American Indian

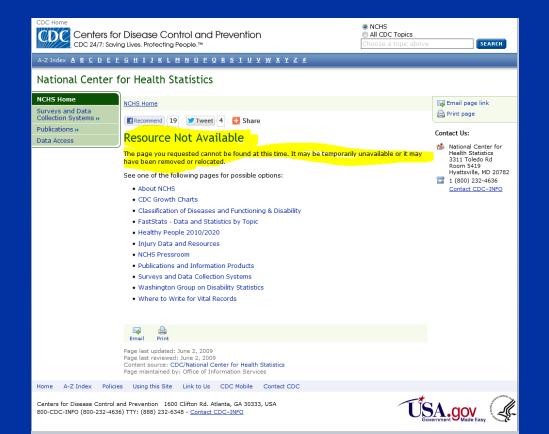
Each Year, the State Data Center gets data from SD Vital Statistics and provides it to the Population Estimates Branch

Population Estimates Branch & FSCPE Annual Input Data Sheet for BIRTHSTot									
ST/CO FIPS	Area Name	Year	Births	Year	deaths	difference			
	(2)	(3)	(4)	(3)	(4)				
46000	South Dakota	2011	11,834		7,271	4,563			
46003	Aurora County	2011	39	2011	29	10			
46005	Beadle County	2011	294	2011	201	93			
46007	Bennett County	2011	76	2011	31	45			
46009	Bon Homme County	2011	62	2011	69	-7			
46011	Brookings County	2011	385	2011	182	203			
46013	Brown County	2011	485	2011	355	130			
46015	Brule County	2011	69	2011	56	13			
46017	Buffalo County	2011	57	2011	18	39			
46019	Butte County	2011	136	2011	123	13			
46021	Campbell County	2011	8	2011	21	-13			
46023	Charles Mix County	2011	157	2011	98	59			
46025	Clark County	2011	52	2011	62	-10			
46027	Clay County	2011	152	2011	89	63			
46029	Codington County	2011	372	2011	239	133			
46031	Corson County	2011	84	2011	44	40			
46033	Custer County	2011	77	2011	82	-5			
46035	Davison County	2011	262	2011	205	57			

The Data Center also shares Vital Statistics Data on deaths

Α	В	С	D	Е					
Population Estimates Branch & FSCPE Annual Input Data Sheet for DEATHSTotals Only									
	Check here if these data are final.								
	Check here if these data include revisions to previously submitted data.								
	Check here if these data are preliminary.								
				Comment Reference					
ST/CO FIPS		Year	Total	No.					
(1)	(2)	(3)		(5)					
46000	South Dakota	2011	7,271						
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46013	Brown County	2011	355						
46015	Brule County	2011	56						
46017	Buffalo County	2011	18						
46019	Butte County	2011	123						
46021	Campbell County	2011	21						
46023	Charles Mix County	2011	98						
46025	Clark County	2011	62						
46027	Clay County	2011	89						
46029	Codington County	2011	239						
46031	Corson County	2011	44						
46033	Custer County	2011	82						
46035	Davison County	2011	205						
46037	Day County	2011	86						
46039	Deuel County	2011	43						
46041	Dewey County	2011	48						
46043	Douglas County	2011	58						
46045	Edmunds County	2011	50						
46047	Fall River County	2011	113						
46049	Faulk County	2011	23						
46051	Grant County	2011	72						
46053	Gregory County	2011	58						
46055	Haakon County	2011	27						
46057	Hamlin County	2011	78						
46059	Hand County	2011	41						

You would think that finding information on deaths would be fairly easy (without using the obituaries)



National and State Level Data is readily accessible

• http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf

National Vital Statistics Reports Volume 61, Number 4, May 8, 2013

• Deaths: Final Data for 2010

	All causes			Human immunodeficiency virus (HIV) disease (B20-B24)			Malignant neoplasms (C00-C97)			Diabetes mellitus (E10-E14)		
Area	Number	Rate	Age- ad justed rate ¹	Number	Rate	Age- adjusted rate ¹	Number	Rate	Age- adjusted rate ¹	Number	Rate	Age- adjusted rate ¹
United States ²	2,468,435	799.5	747.0	8,369	2.7	2.6	574,743	186.2	172.8	69,071	22.4	20.8
Alabama	48,038	1,005.0	939.7	153	3.2	3.2	10,196	213.3	191.7	1,302	27.2	25.0
Alaska	3,728	524.9	771.5	6	*	*	884	124.5	176.9	86	12.1	19.6
Arizona	46,762	731.6	693.1	102	1.6	1.6	10,678	167.1	154.2	1,389	21.7	20.3
Arkansas	28,916	991.7	892.7	64	2.2	2.2	6,475	222.1	194.7	850	29.2	25.8
California	234,012	628.2	646.7	742	2.0	1.9	56,453	151.5	156.9	7,061	19.0	19.7
Colorado	31,465	625.6	682.7	67	1.3	1.2	7,035	139.9	149.5	721	14.3	15.2
Connecticut	28,692	802.8	652.9	83	2.3	2.0	6,954	194.6	163.4	662	18.5	15.4
Delaware	7,706	858.2	769.9	46	5.1	4.9	1,909	212.6	185.7	196	21.8	19.2
District of Columbia	4,672	776.4	792.4	121	20.1	20.4	1,041	173.0	178.3	145	24.1	24.9
Florida	173,791	924.4	701.1	1,068	5.7	5.4	41,467	220.6	165.6	5,024	26.7	20.1
Georgia	71,263	735.6	845.4	495	5.1	5.0	15,435	159.3	174.8	1,996	20.6	23.1
Hawaii	9,617	707.0	589.6	13	*	*	2,266	166.6	140.9	272	20.0	16.6
ldaho	11,429	729.1	731.6	9			2,530	161.4	159.9	353	22.5	22.5
Illinois	99,931	778.8	736.9	300 91	2.3	2.3	24,070	187.6	178.6	2,507	19.5	18.5 22.7
Indiana	56,743 27,745	875.2 910.8	820.6 721.7	15	1.4	1.5	13,164 6,358	203.0 208.7	188.6 171.9	1,587 733	24.5 24.1	19.3
Kansas	24,502	858.8	762.2	27	0.9	0.9	5,377	188.5	171.9	655	23.0	20.5
Kentucky	41,983	967.5	915.0	53	1.2	1.2	9,930	228.8	208.3	1,212	27.9	26.0
Louisiana	40,667	897.1	903.8	225	5.0	5.0	9,203	203.0	197.6	1,205	26.6	26.4
Maine	12,750	959.8	749.6	9	*	*	3,248	244.5	187.9	376	28.3	21.8
Maryland	43,325	750.4	728.6	316	5.5	5.0	10,269	177.9	171.2	1,191	20.6	19.9
Massachusetts	52,583	803.1	675.0	120	1.8	1.6	12,993	198.4	171.3	1,028	15.7	13.3
Michigan	88,021	890.6	786.2	150	1.5	1,5	20,620	208.6	182.9	2,697	27.3	24.0
Minnesota	38,972	734.8	661.5	48	0.9	0.9	9,612	181.2	167.2	1,037	19.6	17.7
Mississippi	28,965	976.1	962.0	118	4.0	4.2	6,271	211.3	201.4	926	31.2	30.3
Missouri	55,281	923.1	819.5	105	1.8	1.8	12,626	210.8	185.6	1,425	23.8	21.2
Montana	8,827	892.1	754.7	7	*	*	1,923	194.4	161.0	227	22.9	19.1
Nebraska	15,171	830.7	717.8	12	*	*	3,438	188.2	167.4	452	24.7	21.7
Nevada	19,623	726.6	795.4	60	2.2	2.2	4,529	167.7	174.2	350	13.0	13.8
New Hampshire	10,201	774.9	690.4	9	*	*	2,525	191.8	167.9	236	17.9	16.1
New Jersey	69,495	790.4	691.1	378	4.3	3.9	16,815	191.3	169.5	2,098	23.9	21.0
New Mexico	15,931	773.7	749.0	33	1.6	1.6	3,358	163.1	152.4	643	31.2	29.8
New York	146,432	755.7	665.5	990	5.1	4.7	35,431	182.8	163.1	3,642	18.8	16.7
North Carolina	78,773	826.1	804.9	328	3.4	3.3	18,061	189.4	179.0	2,042	21.4	20.5
North Dakota	5,944	883.7	704.3	2	*	*	1,269	188.7	157.1	192	28.5	22.2
Ohio	108,711	942.3	815.7	138	1.2	1.1	25,083	217.4	187.7	3,470	30.1	25.8
Oklahoma	36,529	973.8	915.5	50	1.3	1.4	7,831	208.8	191.3	1,089	29.0	26.9
Oregon	31,890	832.4	723.1	47	1.2	1.2	7,638	199.4	173.9	1,052	27.5	23.7
Pennsylvania	124,596	980.9	765.9	266	2.1	1.9	29,055	228.7	181.6	3,242	25.5	20.0
Rhode Island	9,579	910.1	721.7	20	1.9	1.8	2,266	215.3	178.3	211	20.0	16.0
South Carolina	41,614	899.7	854.8	184	4.0	3.9	9,356	202.3	183.6	1,128	24.4	22.6
South Dakota	7,100	872.0	715.1	10			1,655	203.3	171.0	240	29.5	24.5
Tennessee	59,578	938.8	890.8	207	3.3	3.2	13,593	214.2	195.7	1,687	26.6	24.7
Texas	166,527	662.3	772.3	773	3.1	3.2	36,717	146.0	165.9	4,744	18.9	21.6
Utah	14,776	534.6	703.2	13	*	*	2,810	101.7	133.7	471	17.0	22.7
Vermont	5,380	859.8	718.7	7			1,392	222.5	183.2	151	24.1	20.7

While information on births and deaths is available online, county-level data generally must be obtained from State Vital Statistics records.

On the other hand, the national and state level data does a great job at covering the medical causes of death.

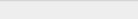
Let's Look at Finding Migration Data

- The Official Source
 - o http://www.irs.gov/uac/SOI-Tax-Stats-County-to-County-Migration-Data-Files
- Easier to Use unofficial source
 - o http://interactive.taxfoundation.org/About/
- The Census Flows Mapper
 - o http://flowsmapper.geo.census.gov/flowsmapper/flowsmapper.html
- Wisconsin's Program
 - o http://www.netmigration.wisc.edu/

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SOI Tax Stats - County-to-County Migration Data Files





State and county migration statistics will continue to be produced and posted on this site. Statistics for 1990 through 2010 are currently available. Statistics for 2011 will be posted as soon as they are completed. In addition, work is underway at IRS and the Bureau of the Census to develop additional migration statistics that take advantage of improved data that have recently become available.

Data files are available for download in two formats:

- Generic ASCII data files (.dat file extension) These require a record layout to read.
- · Comma Separated Values files (.csv file extension) Data items are separated by commas, where each new line represents a new row.

Documentation

Migration Data Users Guide

Record layouts-Required for .dat files

County-to-County Inflow

.dat File

2009-2010 2005-2006 2008-2009 2007-2008 2006-2007 2004-2005

.csv File

2009-2010 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005

Migration Data by Individual State (Excel format)



Alabama

Alaska

<u>Arizona</u>

Arkansas

California

Colorado

Connecticut

Delaware

District of Columbia

Kentucky

Louisiana

Maine

Maryland

Massachusetts

<u>Michigan</u>

<u>Minnesota</u>

Mississippi

Missouri

North Dakota

Ohio

Oklahoma

Oregon

<u>Pennsylvania</u>

Rhode Island

South Carolina

South Dakota

Tennessee

SOUTH DAK	OTA INFLO	W						
Individual I	ncome Tax	Returns: Cou	unty-to-Cour	nty Migration	Inflow for Selected Income Items,	Calendar Year	rs 2010-2011	
	in thousands of doll:		_					
Destination into	South Dakota			Origin	n from	Number of returns	Number of exemptions	Aggregate adjusted gross income (AGI)
- State Code	County Code	State Code	County Code	State	County Name	(1)	(2)	(3)
46	000	96	000	SD	Total Mig - US & For	25,521	45,858	1,007,667
46	000	97	000		Total Mig - US	25,307	45,379	998,705
46	000	97		SD	Total Mig - US Same St	13,267	23,319	460,740
46	000	97	003	SD	Total Mig - US Diff St	12,040	22,060	537,964
46	000	98	000	SD	Total Mig - Foreign	214	479	8,962
46	003	96	000	SD	Aurora County Tot Mig-US & For	63	111	1,864
46	003	97	000	SD	Aurora County Tot Mig-US	63	111	1,864
46	003	97	001	SD	Aurora County Tot Mig-Same St	42	73	1,229
46	003	97	003	SD	Aurora County Tot Mig-Diff St	21	38	635
46	003	98	000	SD	Aurora County Tot Mig-Foreign	d	d	d
46	003	46	003	SD	Aurora County Non-Migrants	1,002	2,295	50,944
46	003	46	035		Davison County	21	35	559
46	003	58	000		Other Flows - Same State	21	38	670
46	003	59	000		Other Flows - Diff State	21	38	635
46	005	96	000		Beadle County Tot Mig-US & For	422	871	13,440
46	005	97	000		Beadle County Tot Mig-US	422	871	13,440
46	005	97	001	SD	Beadle County Tot Mig-Same St	182	334	5,530
46	005	97	003		Beadle County Tot Mig-Diff St	240	537	7,910
46	005	98	000		Beadle County Tot Mig-Foreign	d	d	d
46	005	46	005		Beadle County Non-Migrants	6,363	13,643	324,531
46	005	46	099		Minnehaha County	34	57	1,058
46	005	46	115		Spink County	12	20	619
46	005	46	011		Brookings County	11	13	270
46	005	46	073		Jerauld County	11	29	339
46	005	46		SD	Sanborn County	10	21	461
46	005	58	000		Other Flows - Same State	104	194	2,785
46	005	59	000		Other Flows - Diff State	240	537	7,910
46	005	59	001		Other Flows - Northeast	10	18	287
46	005	59	003		Other Flows - Midwest	107	241	3,872
46 46	005	59 59	005		Other Flows - South	69	159	1,877
46	005 007	96	007 000		Other Flows - West	54	119	1,874
46	007	96	000		Bennett County Tot Mig-US & For	61 61	148 148	1,150 1,150
46	007	97	000	SD	Bennett County Tot Mig-US	31	70	1,150 582
46	007	97	001		Bennett County Tot Mig-Same St Bennett County Tot Mig-Diff St	30	70	568
46	007	98	000		Bennett County Tot Mig-Foreign	30	d	300 d
46	007	46	000		Bennett County Non-Migrants	909	2,240	34,183
46	007	46	113		Shannon County	10		204
46	007	58	000		Other Flows - Same State	21	42	378
46	007	59	000		Other Flows - Diff State	30	78	568
46	007	96	000		Bon Homme Count Tot Mig-US & For	144	280	3,355
46	009	97	000		Bon Homme Count Tot Mig-US	144	280	3,355
46	009	97	000		Bon Homme Count Tot Mig-Same St	89	173	
40	003	31	001		Don Holling Count For Inig-Sallie St	09	113	2,009

Finding Migration Data

- The Official Source
 - o http://www.irs.gov/uac/SOI-Tax-Stats-County-to-County-Migration-Data-Files
- Easier to Use unofficial source
 - o http://interactive.taxfoundation.org/About/
- The Census Flows Mapper
 - o http://flowsmapper.geo.census.gov/flowsmapper/flowsmapper.html
- Wisconsin's Program
 - o http://www.netmigration.wisc.edu/





ABOUT CALCULATORS DATA TOOLS

Calculators

MyTaxBurden Tax Policy Calculator

Health Care Tax Calculator

Marginal Rates Calculator and Graph

VAT Calculator

Data Tools

Property Tax Data by County

Migration Data

State Spending Limits

Tax Foundation
National Press Building
529 14th Street, NW
Suite 420
Washington, DC
20045-1000

202.464.6200

Tax Foundation Interactive Projects

This section of our website hosts many of the Tax Foundation's interactive tools.

To get started, try out one of the links to the left, or visit our main website.

If you found this material useful, please consider making a donation to the Tax Foundation.

Nick Kasprak is the primary programmer, designer, and webmaster of the interactive section of the Tax Foundation's website.



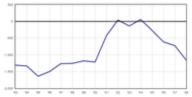
INTERACTIVE TOOLS and DATA PROJECTS ABOUT CALCULATORS DATA TOOLS

State to State Migration Data

f Share SHARE

f Like 302 people like this. Be the first of your friends.

Pick a state, a start date and an end date, and this tool will tell you how many people and how much income moved to and from that state, from and to every other state, in the time period you've chosen. We show only state to state migration, and exclude foreign immigration and emigration. See our list of Frequently Asked Questions for more information.



To see a graph of migration over time between any two states, simply click on any of the figures below

Display Migration Data:

To: South Dakota Starting year: 1993 -Ending year: 2010 ▼ (Up to but not including)

Show: In Migration

Delaware

District of Columbia

Out Migration

Net Migration

If you found this material useful, please consider making a donation to the Tax Foundation. DONATE

-28

-85

Click on a column header to sort by column. Click on the data to display a graph.

Adjust AGI figures for Inflation (2010 Dollars) V

\$231

-\$58

From State	Net # Returns Into South Dakota	Net # Exemptions Into South Dakota	Net AGI Into South Dakota (thousands
Alabama	-165	-400	-\$7,90
Alaska	99	312	\$18,58
Arizona	-2,562	-3,892	-\$95,32
Arkansas	-237	-540	-\$28,77
California	2,034	6,085	\$125,66
Colorado	-1,836	-787	-\$5,58
Connecticut	91	194	\$13,30

-9

-99

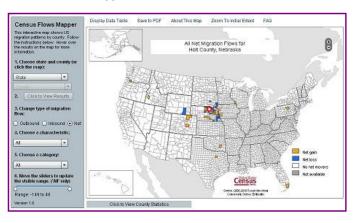
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 - o http://flowsmapper.geo.census.gov/flowsmapper/flowsmapper.html
- Wisconsin's Program
 - o http://www.netmigration.wisc.edu/

Census Flows Mapper - Beta

The Census Flows Mapper is a web mapping application intended to provide users with a simple interface to view, save and print county -to-county migration flows maps of the United States. The data are from the 2006-2010 American Community Survey.

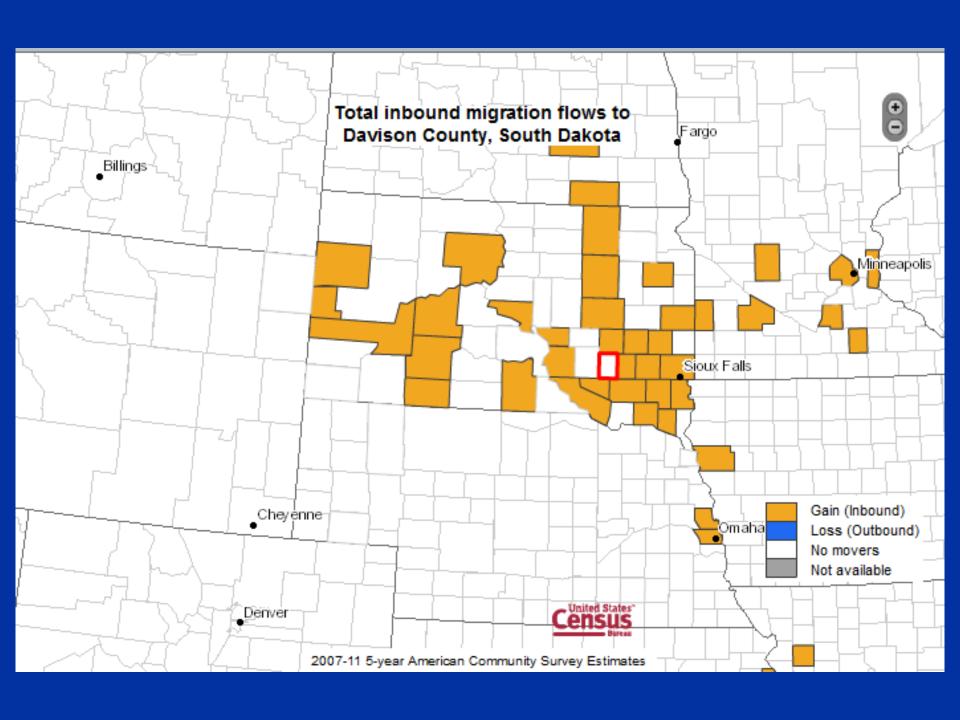
Please click on the image or link below to launch the application.

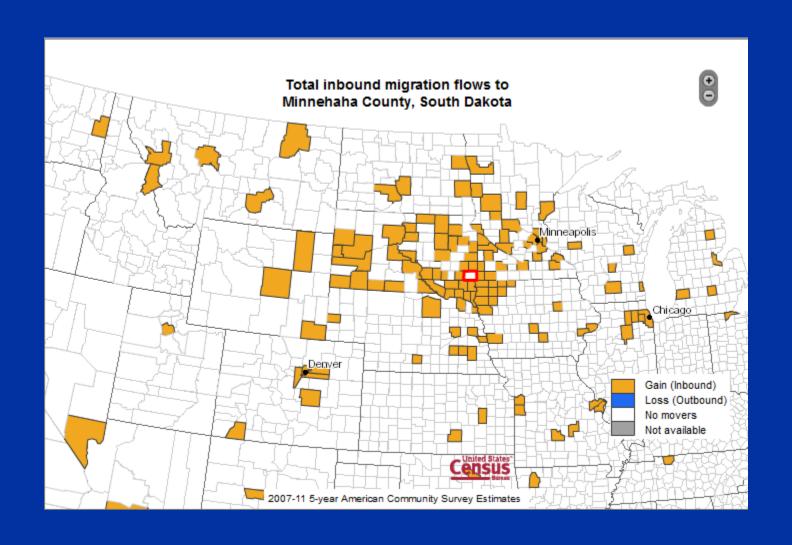


Launch the Census Flows Mapper

Application Requirements:

- To view this application, you will need the Adobe Flash Player available for free from Adobe.
- To save and print a map, you will need the Adobe® Reader® available for free from Adobe.
- To save tabular data, you will need Microsoft Excel or the Microsoft® Excel® Viewer available for free from Microsoft®.

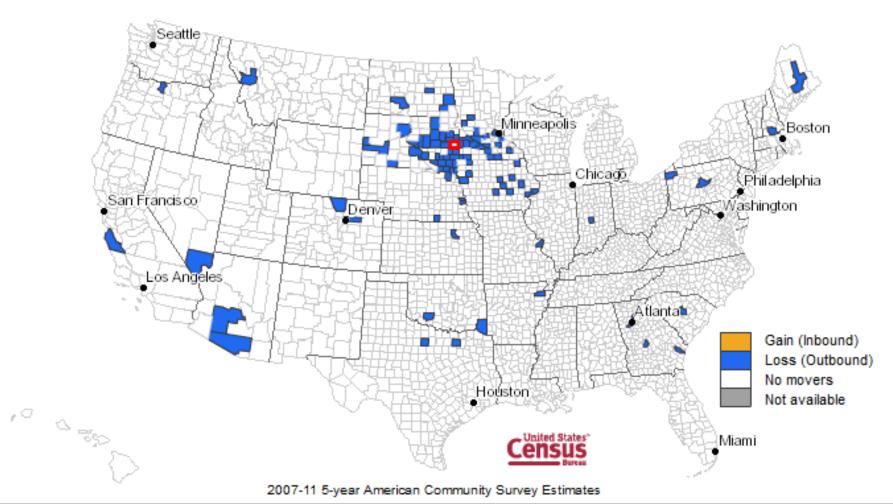






Total outbound migration flows from Brookings County, South Dakota





Finding Migration Data

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- The Census Flows Mapper
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- Wisconsin's Program
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Net Migration Patterns for US Counties

DATA DETAILS DATA USE LINKS

About

Every year, about 10 million Americans move from one county to another. Migration rates vary by age, race, and ethnicity and with local and national social and economic conditions over time. Still, individual counties' patterns of age-specific migration tend to be consistent over time telling demographic stories about local places. This website highlights these stories by providing reliable estimates of net migration broken down by age, race, Hispanic-origin, and sex for all U.S. counties each decade from 1950 to 2010.

Click on the tabs below to make maps and charts that allow you to visualize migration patterns. Charts make it easy to compare migration patterns over time within a single county or to compare patterns in two or three different counties for the same decade. Maps show how counties across the country compare to one another. The data <u>download</u> tab allows you to download migration data as well as census data for your own analysis.

We hope you'll find this website useful. Please <u>contact us</u> with any questions or comments.

 $\underline{\text{Click here}}$ to learn more about these data and the methods used to generate them.

Suggested Citation:

Winkler, Richelle, Ken Johnson, Cheng Cheng, Jim Beaudoin, Paul Voss, and Katherine Curtis. Age-Specific Net Migration Estimates for US Counties, 1950-2010. Applied Population Laboratory, University of Wisconsin- Madison, 2013. Web. [Date of <u>access</u>.] < http://www.netmigration.wisc.edu/>.

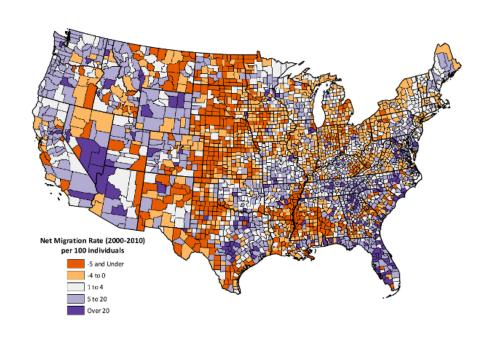




Map

Charts

Download Data



The Three Factors of Demography

- Birth
- Death
- Migration

We have precise and timely measurements of Migration

- Tax returns are consistent and timely
 - o The problem is that not everyone files, and folks move from dependent to taxpayer status
 - o In college towns, freshmen come as exemptions and leave as taxpayers
- American Community Survey data is consistent and timely
 - O The problem is that the survey methodology includes a high margin of error, and that increases in rural communities.
 - O Moving targets are harder to hit whether you're using a survey for migrating people or other tools for migrating waterfowl.

- County to County Migration Flows ACS
 - o http://www.census.gov/hhes/migration/data/acs/county to county mig 2006 to 2010.html
- Complete, cumbersome, and a high MOE
- Census Flows Mapper
 - o http://flowsmapper.geo.census.gov/flowsmapper/flowsmapper.html
 - o Fast, visible, but a high MOE

We really do need the IRS

- Their Website
 - o http://www.irs.gov/uac/SOI-Tax-Stats-County-to-County-Migration-Data-Files
- Official, Reliable, and Cumbersome
- The Tax Foundation's site
 - o http://interactive.taxfoundation.org/migration/
- The Missouri Answer
 - o http://mcdc.missouri.edu/cgi-bin/broker? PROGRAM=websas.irsmig menu.sas& SERVICE=appdev&st=29

User Friendly

- o http://flowsmapper.geo.census.gov/flowsmapper/flowsmapper.html
- o http://mcdc.missouri.edu/cgi-bin/broker? PROGRAM=websas.irsmig menu.sas& SERVICE=appdev&st=29
- o http://www.netmigration.wisc.edu/