

Comparing IRS Exemptions to 2010 Census Population Counts

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Introduction

- U.S. Census Bureau's components of annual population estimates:
 - Births
 - Deaths
 - Domestic Migration for the Household Population
 - International Migration
 - Group Quarters
 - Military Population
 - Military Movement

Overview

- Data Sources
- Explain Method to Compute Domestic Migration
- Define the Universe
- Discuss Limitations
- Define Coverage Rates
- Present Coverage Rates by:
 - National Level
 - Subnational Geography
 - Age Groups
 - County Typology

Data Sources

- 2010 Census household population data
- IRS 1040 tax returns:
 - Tax Year 2009 (TY09): Reflects Address as of April 1, 2010
 - Tax Year 2010 (TY10): Reflects Address as of April 1, 2011
- Social Security Administration (SSA) Numident administrative records

2010 Census Questionnaire

The Census Bureau is required by the constitution to enumerate every resident in the United States. The population was enumerated as of April 1, 2010. The total population includes people enumerated in housing units and people enumerated in Group Quarters (GQ) facilities.

Use a blue or black pen.

Start here

The Census must count every person living in the United States on April 1, 2010.

Before you answer Question 1, count the people living in this house, apartment, or mobile home using our guidelines.

- Count all people, including babies, who live and sleep here most of the time.

The Census Bureau also conducts counts in institutions and other places, so:

- Do not count anyone living away either at college or in the Armed Forces.
- Do not count anyone in a nursing home, jail, prison, detention facility, etc., on April 1, 2010.
- Leave these people off your form, even if they will return to live here after they leave college, the nursing home, the military, jail, etc. Otherwise, they may be counted twice.

The Census must also include people without a permanent place to stay, so:

- If someone who has no permanent place to stay is staying here on April 1, 2010, count that person. Otherwise, he or she may be missed in the census.

1. How many people were living or staying in this house, apartment, or mobile home on April 1, 2010?

Number of people =

Who is Required to File Taxes?

- Most taxpayers under 65 are required to pay if they are:
 - Single with a gross income of at least \$9,350
 - Head of household with a gross income of at least \$12,050
 - Married filing jointly with a gross income of at least \$18,700
 - Person who receives unemployment benefits – if income meets the threshold

Source: IRS 1040 Instructions TY 2009

- Households with incomes less than \$15,000
 - 7.2% have incomes less than \$10,000
 - 5.5% have incomes between \$10,000 and \$15,000

Source: U.S. Census Bureau, 2006-2010 American Community Survey

Administrative Record Data Set: IRS 1040 Tax Returns

Address

SSN/Protected Identification Key (PIK)

Form 1040 Department of the Treasury—Internal Revenue Service **2009** (99) IRS Use Only—do not write or staple in this space.

Label (See instructions on page 14.) Use the IRS label. Otherwise, please print or type.

For the year Jan. 1-Dec. 31, 2009, or other tax year beginning , 2009, ending , 20

OMB No. 1545-0074

Your first name and initial **Last name** **Your social security number**

If a joint return, spouse's first name and initial **Last name** **Spouse's social security number**

Home address (number and street). If you have a P.O. box, see page 14. **Apt. no.**

City, town or post office, state, and ZIP code. If you have a foreign address, see page 14.

Presidential Election Campaign Check here if you, or your spouse if filing jointly, want \$3 to go to this fund (see page 14) ☐ **You** ☐ **Spouse**

Filing Status Check only one box.

1 ☐ Single

2 ☐ Married filing jointly (even if only one had income)

3 ☐ Married filing separately. Enter spouse's SSN above and full name here. ▶

4 ☐ Head of household (with qualifying person). (See page 15.) If the qualifying person is a child but not your dependent, enter this child's name here. ▶

5 ☐ Qualifying widow(er) with dependent child (see page 16)

Exemptions **Filer/Spouse/Dependents**

6a ☐ Yourself. If someone can claim you as a dependent, do not check box 6a.

b ☐ Spouse

Dependents:

(1) First name	Last name	(2) Dependent's social security number	(3) Dependent's relationship to you	(4) <input checked="" type="checkbox"/> Qualifying child for child tax credit (see page 17)
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

Total number of exemptions claimed **d**

Boxes checked on 6a and 6b

No. of children on 6c who:

- lived with you
- did not live with you due to divorce or separation (see page 18)

Dependents on 6c not entered above

Add numbers on lines above ▶

Administrative Record Data Set:

SSA Numident Data

SOCIAL SECURITY ADMINISTRATION Application for a Social Security Card				Form Approved OMB No. 0960-0066	
1	NAME TO BE SHOWN ON CARD	First	Full Middle Name	Last	
	FULL NAME AT BIRTH IF OTHER THAN ABOVE	First	Full Middle Name	Last	
	OTHER NAMES USED				
2	Social Security number previously assigned to the person listed in item 1		[] [] [] - [] [] - [] [] [] []		
3	PLACE OF BIRTH (Do Not Abbreviate) City	State or Foreign Country	Office Use Only FCI	4	DATE OF BIRTH MM/DD/YYYY
5	CITIZENSHIP (Check One) <input type="checkbox"/> U.S. Citizen <input type="checkbox"/> Legal Alien Allowed To Work <input type="checkbox"/> Legal Alien Not Allowed To Work (See Instructions On Page 3) <input type="checkbox"/> Other (See Instructions On Page 3)				
6	ETHNICITY Are You Hispanic or Latino? (Your Response is Voluntary) <input type="checkbox"/> Yes <input type="checkbox"/> No	7	RACE Select One or More (Your Response is Voluntary) <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> American Indian <input type="checkbox"/> Other Pacific Islander <input type="checkbox"/> Alaska Native <input type="checkbox"/> Black/African American <input type="checkbox"/> White <input type="checkbox"/> Asian		
8	SEX <input type="checkbox"/> Male <input type="checkbox"/> Female				
9	A. PARENT/ MOTHER'S NAME AT HER BIRTH		First	Full Middle Name	Last
	B. PARENT/ MOTHER'S SOCIAL SECURITY NUMBER (See instructions for 9 B on Page 3)		[] [] [] - [] [] - [] [] [] []	<input type="checkbox"/> Unknown	
10	A. PARENT/ FATHER'S NAME		First	Full Middle Name	Last
	B. PARENT/ FATHER'S SOCIAL SECURITY NUMBER (See instructions for 10B on Page 3)		[] [] [] - [] [] - [] [] [] []	<input type="checkbox"/> Unknown	

Sex

SSN/ Protected Identification Key (PIK)

Date of Birth

Domestic Migration Methodology

- Use exemptions on annual IRS 1040 returns
 - Match two consecutive years of IRS exemptions by PIK
 - Match to the Numident by PIK to capture age
- Tabulate county-level in-, out-, and non-mover exemptions (aged 0-64)
- Compute net-migration rates:
$$\frac{(\text{In-mover exemptions} - \text{Out-mover exemptions})}{(\text{Non-mover exemptions} + \text{Out-mover exemptions})}$$
- Apply net-migration rates to county household population aged 0-64
- Assume that people who are not in IRS administrative records migrate at the same rate as those who are

Universe

- Census 2010 Household Population
 - Address as of April 1, 2010
- Matched TY09-TY10 Exemptions
 - TY 2009 – address as of “April 1, 2010”
 - TY 2010 – address as of “April 1, 2011”
 - Evaluation: Tabulate by April 1, 2010 address
- Ages: 1-64
 - Start with age 1 and not age 0
 - Children that were born between January 1, 2010 and April 1, 2010 are age 0 in the census but they do not appear in TY09 administrative records and therefore they cannot be matched to TY10 IRS data

Limitations

- Address Issues

- Census address as of April 1, 2010
- Tax returns filed between January and September 30, 2010
 - Assume address is April 1, 2010
 - Tax returns filed by April 15, 2010: 90%
 - Tax returns filed by September 15, 2010: 97.3%
- College students supposed to be counted where they attend college
- College student may not file their own taxes but they may be listed as a dependent on a tax return in a different county

Limitations (cont.)

- Universe Issues

- Differential undercount/overcount in census by age
- Not all people are required to file taxes
- Only have IRS exemptions for the primary filer, spouse, and up to four dependents
- Exemptions with Individual Taxpayer Identification Numbers (ITINS) are not matched to the Numident and are therefore excluded
- People who live in GQ facilities may file taxes

Implied Household (HH) Population

Coverage Rates: Aged 1-64

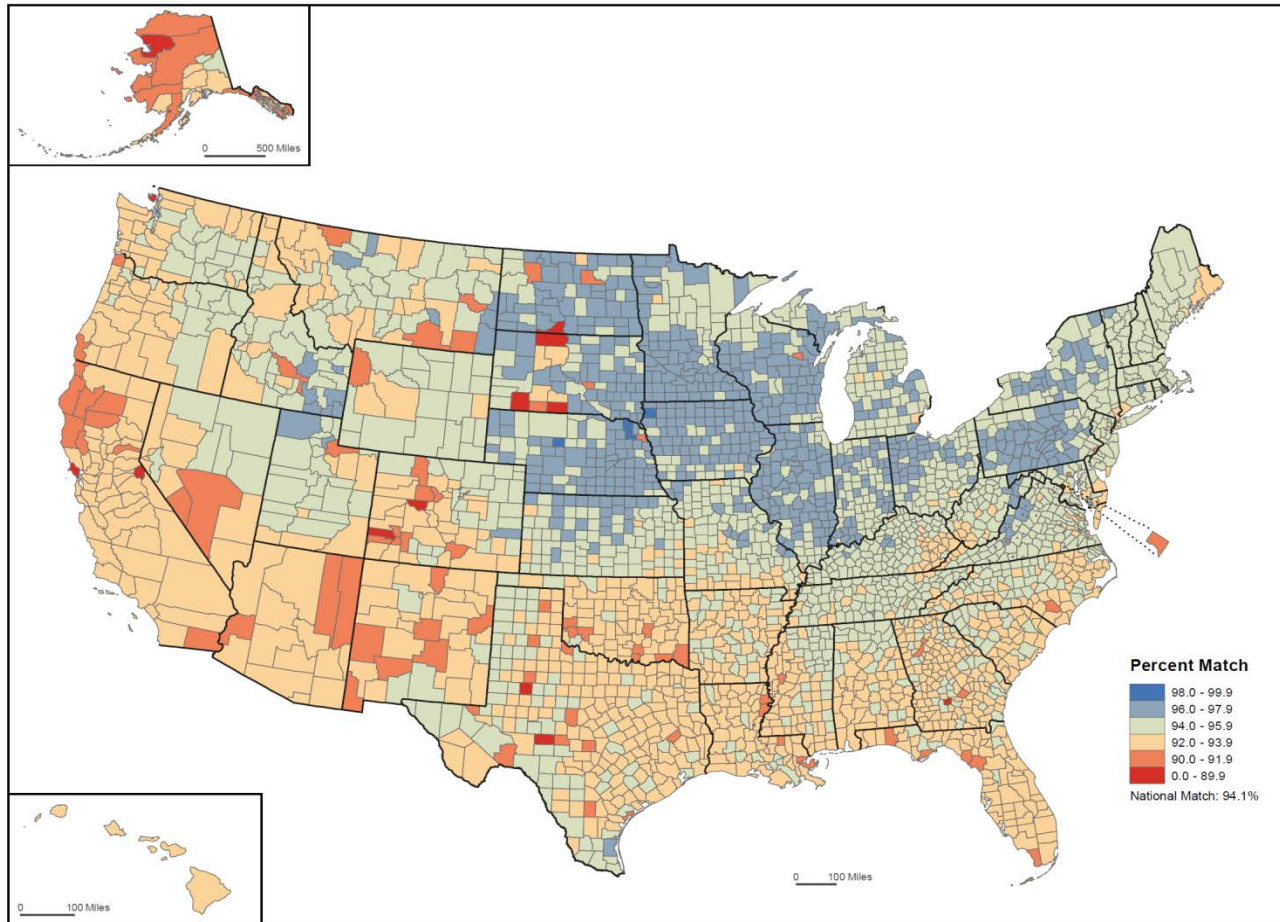
(hereafter referred to as Coverage Rates)

Numerator: Sum number of Matched TY09-TY10
IRS Exemptions – address as of
“April 1, 2010” - by geography, age, or
county typology

Denominator: Sum Census 2010 HH Population by
geography, age, or county typology

$$\text{Coverage Rate} = \left(\frac{\text{Matched Exemptions}}{\text{Household Population}} \right) * 100$$

Proportion of the Total TY09 Exemptions that Matched (by PIK) to TY10 Exemptions



Source: U.S. Census Bureau, Population Division, Special Tabulation of Census 2010, IRS TY09, and IRS TY10 data sources.

Coverage Rates by Geography: 2010

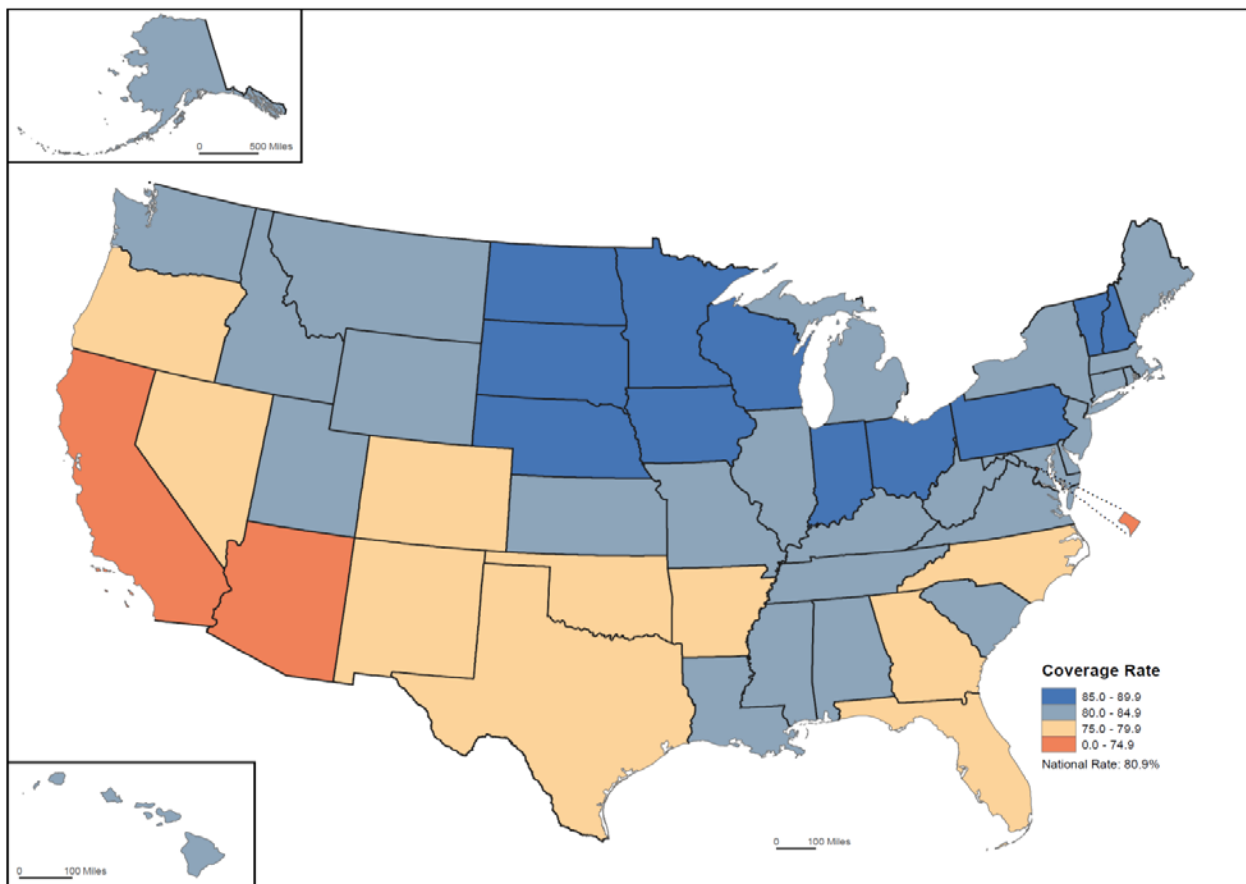
- Census 2010 Household Population: 300.8 Million
- Coverage Rates:
 - National: 80.9%
 - State (median): 82.4%
 - County (median): 83.3%

Distribution of State Coverage Rates: 2010

Coverage Rate Categories	States (Median = 82.4)		
	Number	Percent	Cumulative Percent
85.0 - 89.9	11	21.6	21.6
80.0 - 84.9	27	52.9	74.5
75.0 - 79.9	10	19.6	94.1
0.0 - 74.9	3	5.9	100.0

Source: U.S. Census Bureau, Population Division.

Coverage Rates by State: 2010



Note: Coverage rates are computed by dividing the matched TY09-TY10 exemptions (address as of "April" 2010) by the April 1, 2010 Census household population count.

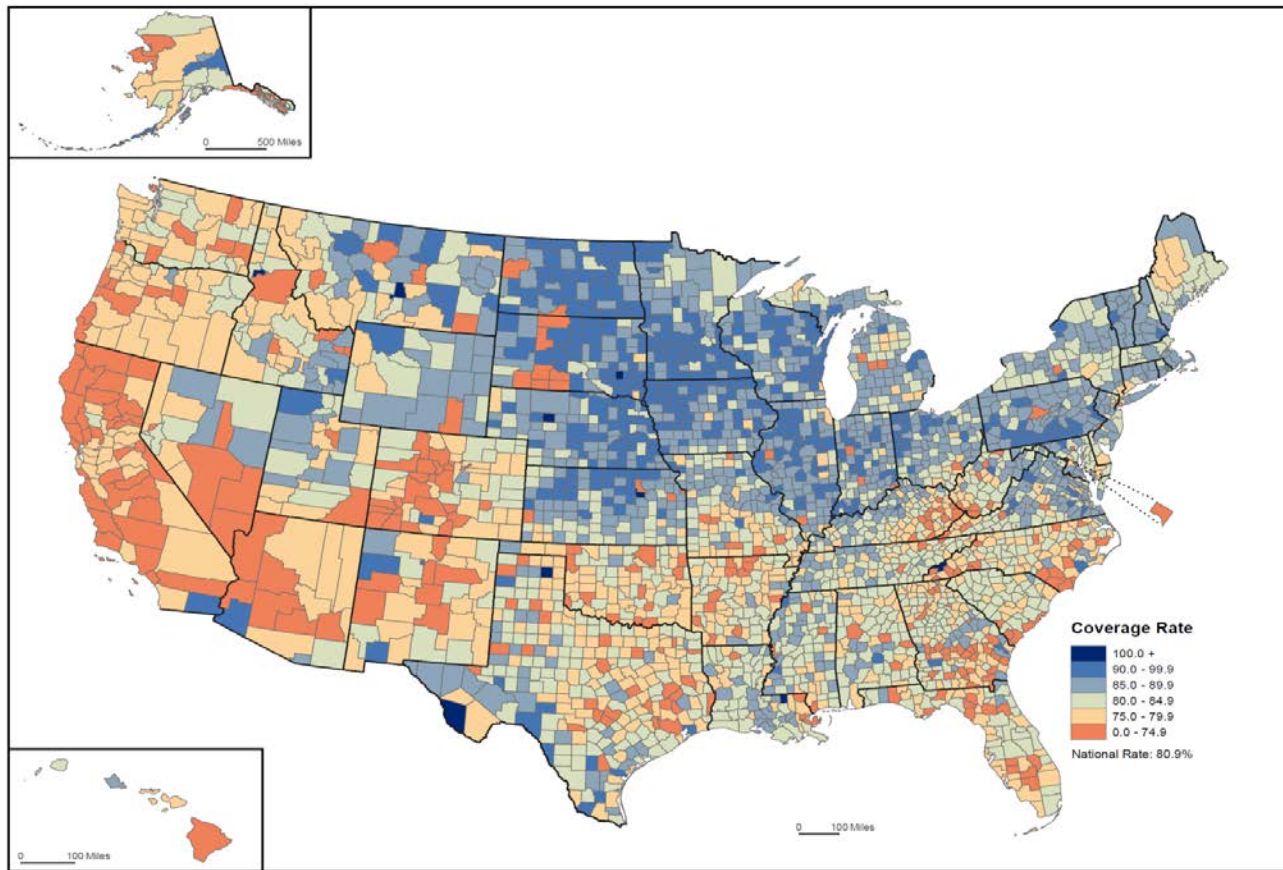
Source: U.S. Census Bureau, Population Division, Special Tabulation of Census 2010, IRS TY09, and IRS TY10 data sources.

Distribution of County Coverage Rates: 2010

Coverage Rate Categories	Counties (Median = 83.3)		
	Number	Percent	Cumulative Percent
100 +	11	0.4	0.4
90.0 - 99.9	408	13.0	13.4
85.0 - 89.9	831	26.4	39.8
80.0 - 84.9	941	29.9	69.7
75.0 - 79.9	645	20.5	90.2
0.0 - 74.9	307	9.8	100.0

Source: U.S. Census Bureau, Population Division.

Coverage Rates by County: 2010



Note: Coverage rates are computed by dividing the matched TY09-TY10 exemptions (address as of "April" 2010) by the April 1, 2010 Census household population count.

Source: U.S. Census Bureau, Population Division, Special Tabulation of Census 2010, IRS TY09, and IRS TY10 data sources.

Counties Where Coverage Rate is 85% or More by Size of County: 2010

2010 Census County Resident Population	Number of Counties	Percent of Counties where Coverage Rate is 85% or Higher
All Counties	3,143	39.8
250,000 or more	220	24.6
65,000 - 249,999	490	37.8
20,000 - 64,999	931	40.4
10,000 - 19,999	651	38.6
0 - 9,999	851	45.1

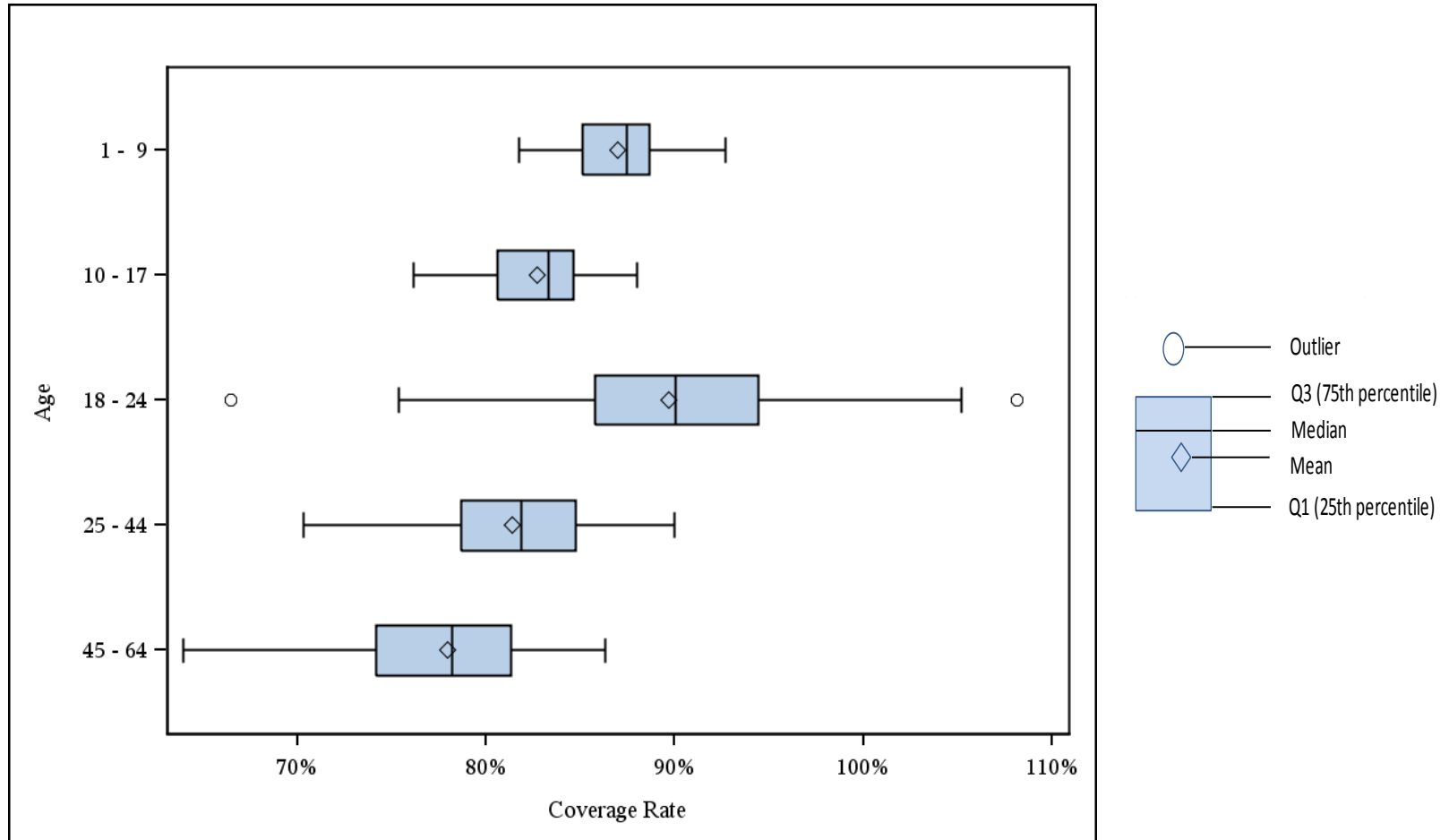
Source: U.S. Census Bureau, Population Division.

Median Coverage Rates by Age Category and Geography: 2010

Age Category	Geography	
	State (Median = 82.4)	County (Median = 83.3)
1-9	87.5	87.4
10-17	82.7	84.1
18-24	89.6	97.3
25-44	81.4	83.3
45-64	78.0	77.2

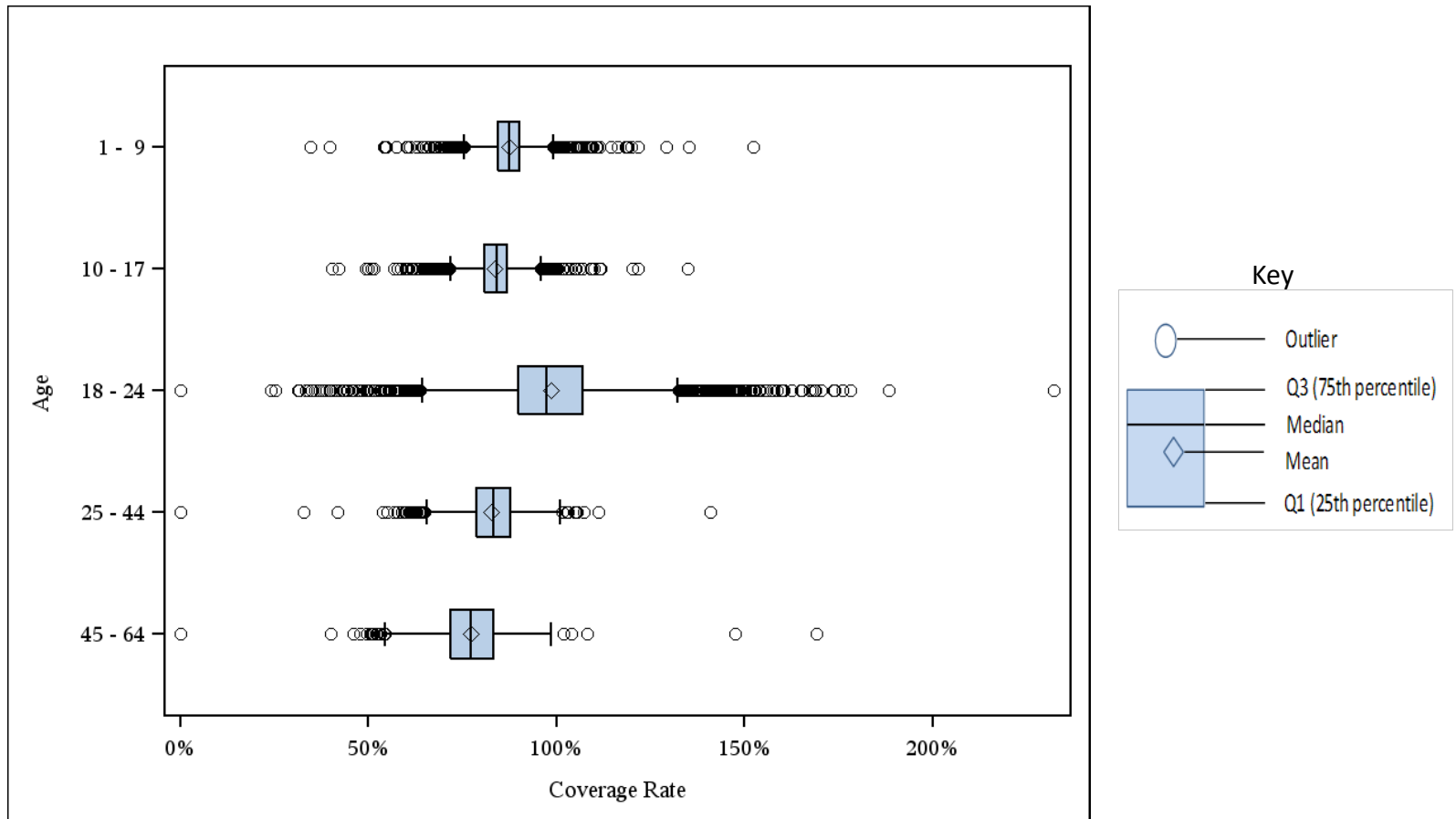
Source: U.S. Census Bureau, Population Division.

Distribution of State Coverage Rates by Age: 2010



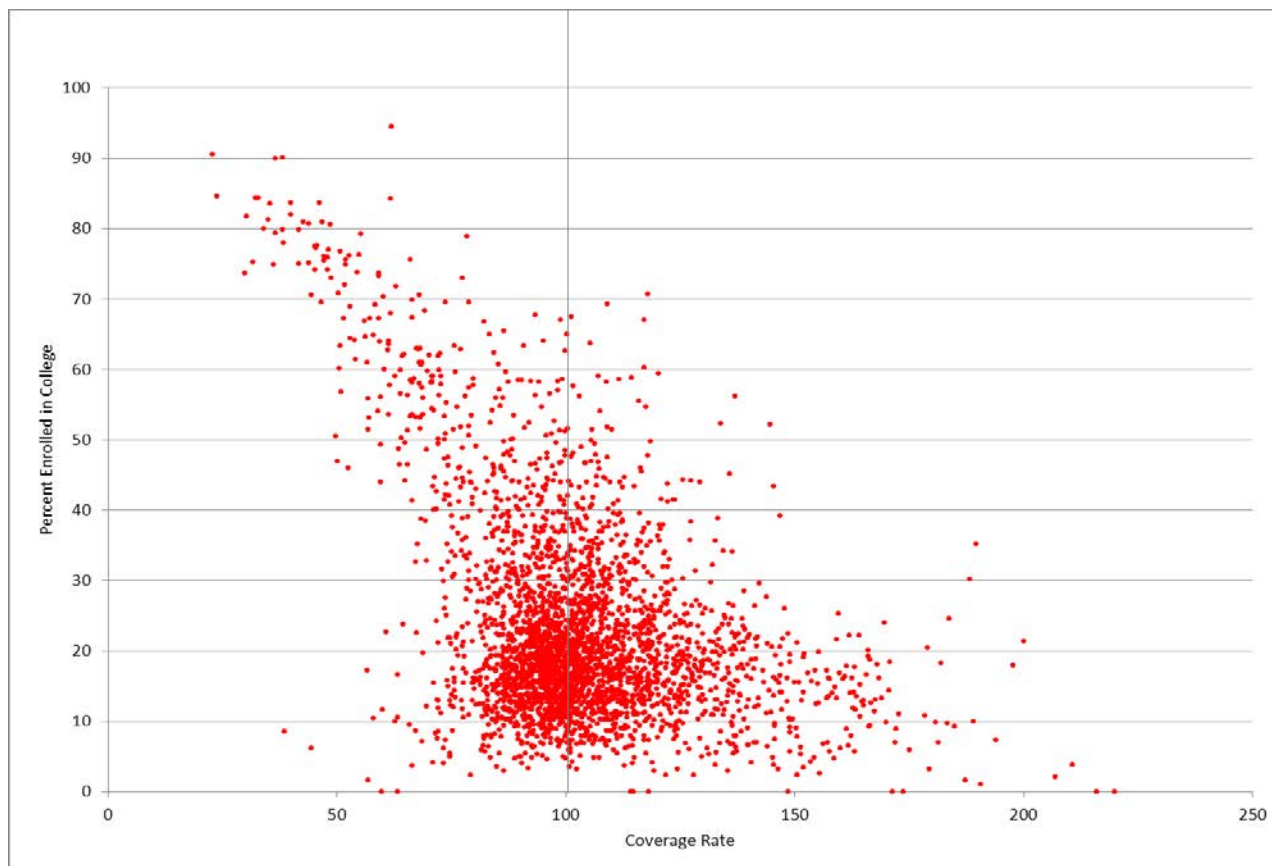
Source: U.S. Census Bureau, Population Division.

Distribution of County Coverage Rates by Age: 2010



Source: U.S. Census Bureau, Population Division.

Percent of County Population Aged 18-24 Enrolled in College Compared to Coverage Rate: 2010



Note: Percent enrolled in college as of Census 2000.

Source: U.S. Census Bureau, Population Division.

Summary

- Coverage rates
 - Numerator: Matched Exemptions Aged 1-64
 - Denominator: Household Population Aged 1-64
- National coverage rate is 80.9%
- Median county coverage rate is 83.3%
- The Midwest has the highest coverage rates
- The West has the lowest coverage rates
- Coverage rates vary by age
- Coverage rates for college counties tend to be lower than other counties

Contact Information

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