

Census Mobility Data for Delaware Regions

A Research Project in Delaware's Census County Divisions

Jill Coghlan

Independent Research Analyst

June 2017

Abstract

Delaware is experiencing a state-wide Mobility rate of 14.5% for 2006-2010 and 13.4% for 2011-2015, reported in American Community Survey estimates. Renters are four times as likely to move as owners, particularly "within the same County". People in Delaware's urban settings move more frequently than into rural areas.



Contents:

Executive Summary

Introduction and Methodology

Part I: General Characteristics

- A. Renters and Owners Mobility

- B. Mobility in Urban and Rural areas

- C. Mobility in perspective with Housing Units, Vacancy and Population

- D. Native v. Foreign-born Mobility

Part II: Mobility's Social and Economic Characteristics

- A. Median Age and Age Quintiles

- B. Education

- C. Median Income, by State, National or Foreign Born

- D. Mobility in Poverty

Summary

Appendix

Notes

Executive Summary

The United States has a long history of immigration from many countries and migration by its citizens throughout the nation. Recently, the Census Bureau confirmed an 11.7% national Mover rate, examining the 2013 Annual Social and Economic Supplement (ASES) to the Current Population Survey.ⁱ An earlier study for 1999 had reported national Mobility at 15.9%. Delaware, according to American Community Survey five-year estimates, had a state-wide mover rate of 14.5% for the period 2006-2010 and 13.4% for 2011-2015.

Mobility applies to both Owners and Renters, and is illustrated with reference to population and vacancy. National home ownership was 66% in 2010 and 64% in 2015. Delaware is situated well in this aspect, with 73% ownership state-wide in 2010 and 71% in 2015. There are always, of course, vacancies. Since the ownership down-turn associated with the 2008 Housing Bubble, during 2011-2015 the state was carrying 20% fewer vacancies of rental and for sale properties than during the 2006-2010 timeframe.

In order to look “under the hood” at a relatively local level, Census provides contiguous coverage across the state’s three counties in twenty-seven Census County Divisions (CCDs), a geographical configuration in place since 1970.

Introduction and Methodology

This research project examines Mobility data from the Census Bureau's American Community Survey (ACS) Five-Year Estimates, that is, the percent of the population who move to an area, (a) from within the same County, (b) from a different County in the same state, (c) from a different State, or (d) from Abroad. These "Movers" are fully integrated within Delaware's demographics for the reporting years.

Statewide Population

899,769 in 2010

945,934 in 2015.

Source: During the five years covered in each of the available non-overlapping ACS surveys, 2006-2010 and 2011-2015, a relatively small number of households (approximately 1 in 100) receive survey questionnaires. The Census Bureau develops their ACS estimates to approximate the actions and choices of the full population from the returned survey responses.

The ACS Mobility data, as survey collections rather than administrative records, can contain quite large Margins of Error (MoE). In general, a larger population will have relatively full representation in survey estimates, while a region with the smallest population is more likely to have a broader Margin of Error. Please remember, that although I have not reported the range of the MoEs, these are only statistically-derived reports from the Census' ongoing survey process.

Additional ACS sources beyond Mobility-labeled tables are included for breadth: Housing Units, Vacancy, and Total Population in Occupied Housing. Another potential ACS table, B25039, "Year Householder moved into Unit by Tenure", proved to have insufficient levels of differentiation to be useful for this project.

Methodology:

Initial calculations review the Statistical Distribution for each of the four types of Mobility reported in Table S0701, for both published 5-year ACS estimates: 2006-2010 and 2011-2015.

After outlining (a) the Median, Mean and Standard Deviation for each Mobility type, (b) specific **Outliers** are noted where Mobility values are recognized as being extremely larger or smaller in proportion to the total set.

A pair of formulas calculate the two primary types of possible Outliers in a data set:

- (a) the Mean-based z-score, or
- (b) the Median-based 1.5(IQR) criterion.

This research does not seek to locate data values that could be reckoned as errors within the data set, which is a consistent use of the mean-based formula. Rather, the median-based version will signal when Mobility values are extremely high or low, in proportion to the whole, to highlight where Mobility might be of special interest.

Geography: For Delaware's three counties, the Census Bureau provides a sub-group, their Census County Divisions (CCDs), being relatively uniform with respect to size and population. The CCD population median for 2011-2015 is 27,114, the mean is 34,313 and the standard deviation almost 6,500. The highest populations are in the New Castle CCD (88,850) and Dover (79,592), both "high" IQR Outliers.

In Delaware, there are a total of twenty-seven (27) CCDs: eleven (11) in New Castle County, seven (7) in Kent County, and nine (9) in Sussex County.

Charts and Maps: Initial illustrations for each Mobility characteristic will pair an Excel chart with an outline of Census County Divisions in the state.

PART I: General Characteristics:

- A. Of Primary interest are the percent of the total population who moved into an area of Delaware, as an Owner or Renter, during the five-year period covered by the ACS estimates released for 2006-2010 and 2011-2015
- B. Urban, rural and intermediate-density communities are profiled; the median, mean and standard deviation are re-calculated for these three density categories and for each county
- C. Changes in (1) Housing Units, (2) Vacancy, and (3) Population in Occupied Housing are graphed against incoming Mobility
- D. To clarify those “moving from Abroad”, native and naturalized citizens are grouped separately from foreign-born, as a number of citizens were returning from work or extended travel overseas.

I.A: Renters and Owners

Renters may move from one housing choice to another during the course of an ACS five-year survey timeframe; the Mobility estimates do accommodate that. Thus, for the City of Newark where University of Delaware students may live in apartments rather than University housing, the 50% renters' Mobility in 2010 and 43% in 2015 register the movement frequency of renters in the area, rather than that 50% of the population who rent have changed their housing. For CCDs in Delaware:

Table I.A.1: % Rental Residents who Moved

	'10 Median	'10 Mean	'10 StDev	'15 Median	'15 Mean	'15 StDev
Renter Mobility Total:	28.6%	27.1%	9.5%	26.1%	26.1%	6.6%
Within the Same County:	17.6%	16.6%	7.0%	17.0%	16.3%	5.9%
From a Different County	0.9%	1.5%	1.6%	1.3%	2.2%	2.5%
From a Different State	6.0%	7.2%	4.9%	6.3%	6.6%	3.8%
From Abroad	0.7%	1.8%	2.9%	0.4%	1.1%	1.6%

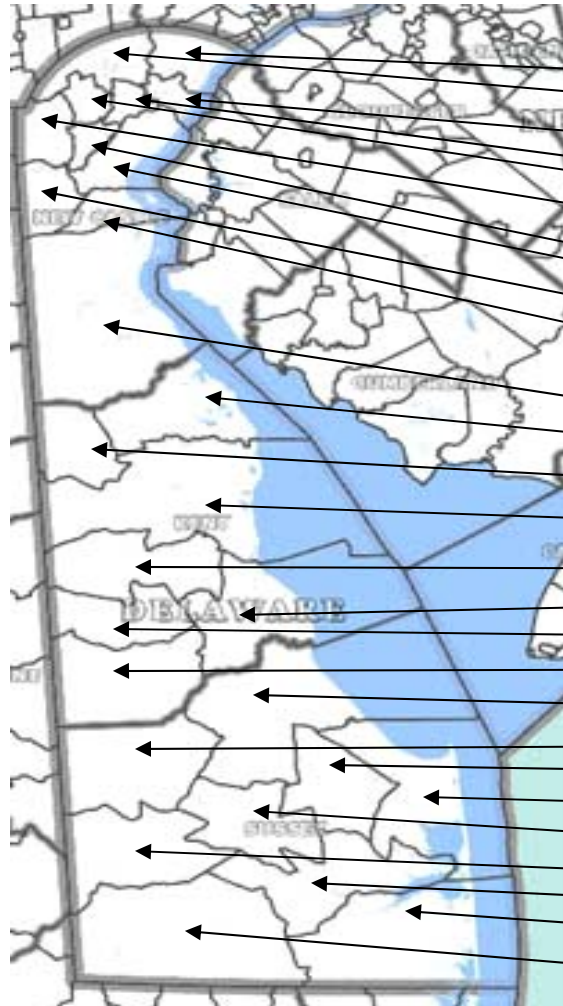
People who move into a new rental within the Same County in Delaware account for almost two-thirds of total rental Movers, while those from a Different State account for just 20% of renter Mobility. Movers from a different county and from Abroad are quite small proportions.

Table I.A.2: Renter Outliers, 2010:

Milford North(Kent),	Diff County: 6.7% > 4.9% Outlier boundary
Milford North (Kent),	Abroad: 8.2% > 4.25% Outlier boundary
Milton (Sussex),	Abroad: 12.7% > 4.25% Outlier boundary
Piedmont (New Castle),	Abroad: 6.3% > 4.25 Outlier boundary
Newark (New Castle)	A special case, with many students renting

Chart I.A.1: Proportion of Renter Mobility

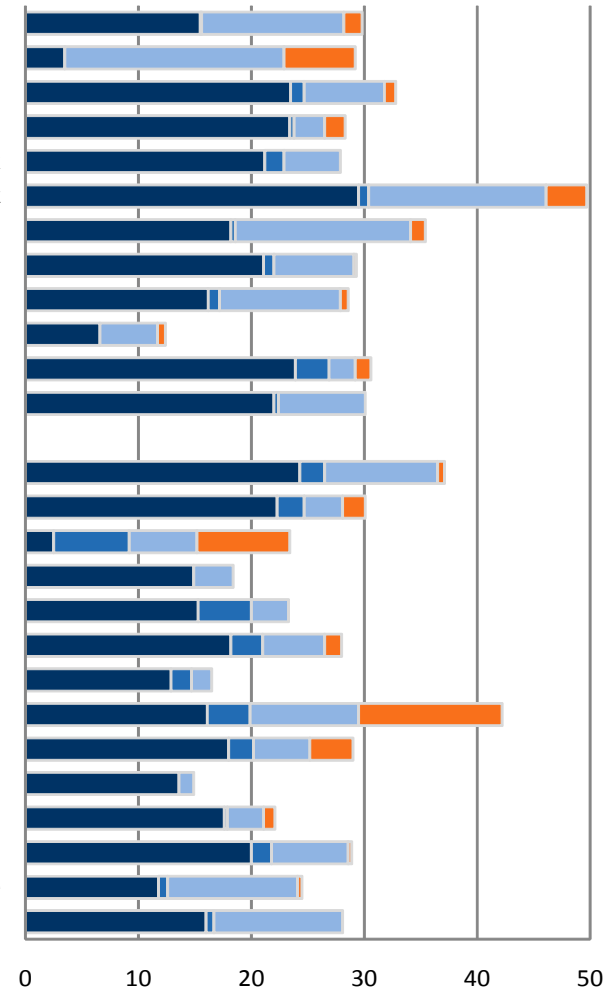
Delaware Census County Divisions



Source: tigerweb.geo.census.gov/tigerweb

**2010, % Renters moving
into Delaware Census County Divisions**

■ Rent% within Same County ■ Rent% from Different County
■ Rent% from Different State ■ Rent% from Abroad



Owners, many of whom suffered during and after the 2008 Housing Bubble, purchased housing that was reported in the ACS 2006-2010 and 2011-2015 Estimates:

<u>Table I.A.3: % Owner-Residents who Moved</u>						
	'10 Median	'10 Mean	'10 StDev	'15 Median	'15 Mean	'15 StDev
Owner Mobility Total:	6.6%	6.8%	1.7%	6.4%	6.5%	1.7%
Within the Same County:	3.7%	3.7%	1.4%	3.2%	3.6%	1.9%
From a Different County	0.4%	0.6%	0.7%	0.3%	0.6%	0.0%
From a Different State	2.1%	2.3%	1.1%	2.0%	2.0%	0.7%
From Abroad	0.2%	0.2%	0.3%	0.2%	0.2%	0.0%

People who purchased within the Same County in Delaware account for just 50% of total owner/Movers, while those from a Different State account for slightly less than a third of Movers (35%). Vacancy in rental and ownership housing will be described in a separate section.

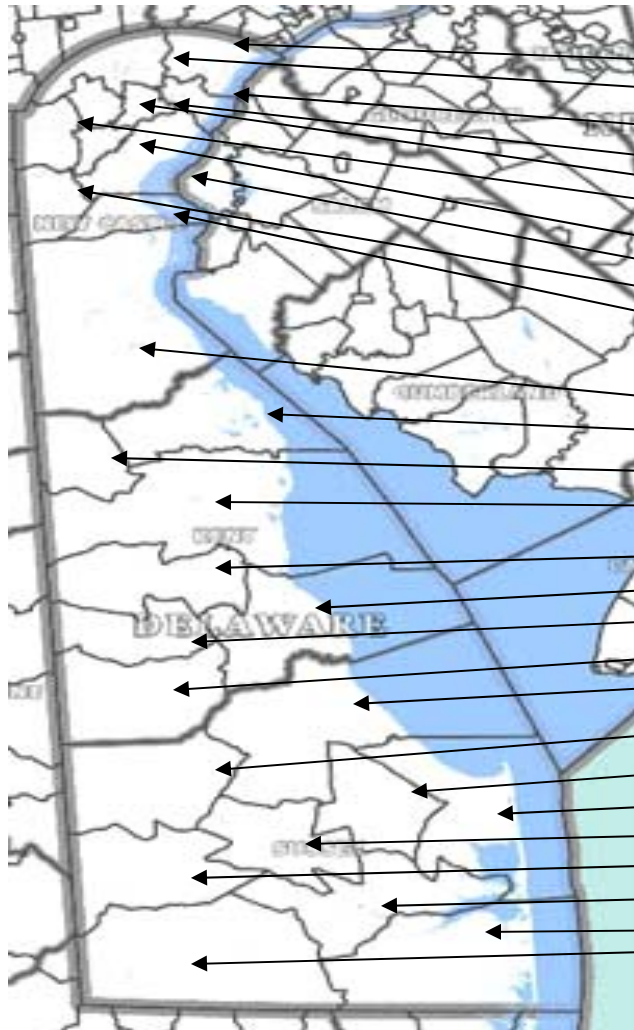
Table I.A.4: 2010 Owner Outliers:

Wilmington(New Castle)	Same County: 7.2% > 6.7% Outlier boundary
Smyrna(Kent)	Diff County: 3.3% > 1.6% Outlier boundary
Milford North(Kent)	Diff County: 2.0% > 1.6% Outlier boundary
Milton (Sussex)	Abroad: 1.6% > 0.55% Outlier boundary

The x-axis per-cent scale for Owner Mobility, on the next page, is set to a width of 25%, just under the Median and Mean for all Renter Movers, to provide a chart scale for Owners fairly similar to that of Renters above.

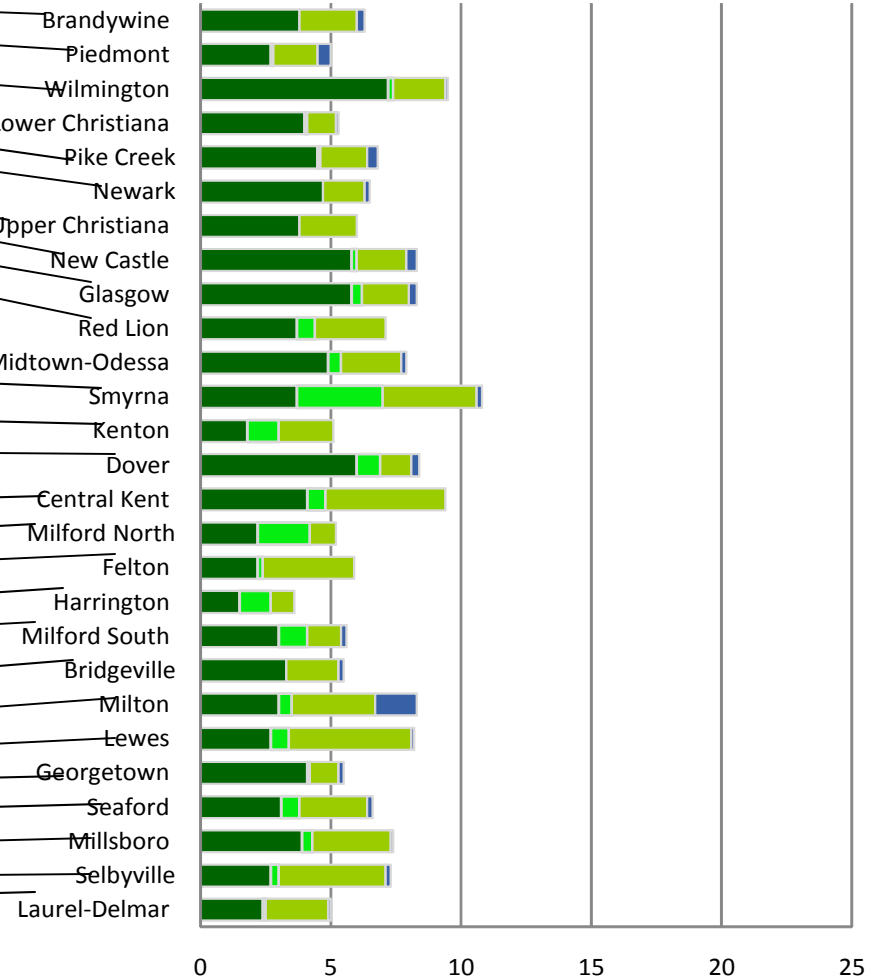
Chart I.A.2: Proportion of Owner Mobility

Delaware Census County Divisions



**2010, % Owners moving
into Delaware Census County Divisions**

■ Own% within Same County
 ■ Own% from Different County
 ■ Own% from Different State
 ■ Own% from Abroad



Source: tigerweb.geo.census.gov/tigerweb

I.B: Urban and Rural

Delaware citizens live in **urban, rural and intermediate-density communities**, so that a statistical distribution across all our county divisions could mask rather than reveal information about demographics. The map and chart combinations below, from the 2011-2015 Five Year ACS, now include an indication whether each Census County Division is considered:

Urban, with an all UPPER-CASE font, which applies primarily to New Castle County;

Rural, in all lower-case font, already a minority in both Kent and Sussex Counties; and

Intermediate-size communities, with “normal” font treatment, include many CCDs in Kent and Sussex counties.

The general discussion *above* for 2010 Renters and Owners includes data points for median, mean and standard deviation for both 2006-2010 and 2011-2015. Outliers for 2015 will be included in this section along with a brief description of urban and rural distributions.

Renter Mobility in 2015 in Urban or Rural groupings:

Calculating the statistical distribution for 2015 Renters shows both urban and New Castle County to have a median of 27.3% for Total Rental Mobility, slightly above the median for the full CCD set at 26.1%. The urban mean, at 29.4%, is above the full data set median, and mean, at 26.1%, an indication that renters are more mobile within more densely populated areas. New Castle County's mean, at 28.9%, is only a few points shy of Mobility in fully urban areas.

Kent County for 2011-2015 had total Renter Mobility of 26.4%, essentially the same as the full distribution of CCDs, although the set of intermediate-sized CCDs has a median mobility of 24.9%, a bit below the median for the full CCD set.

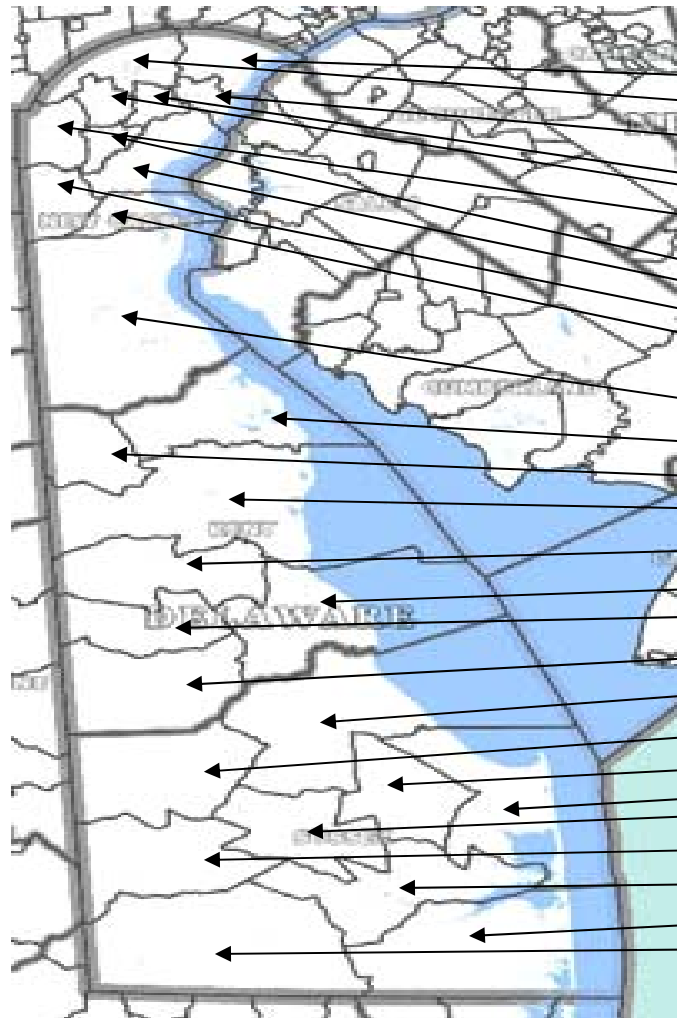
Renters in the five (5) rural CCDs have a median mobility of 24.4%, similar to Kent County and the Intermediate-size communities, but with a mean of 22.9%. For Sussex County, renters have a total mobility of 20.4%, less than in the other counties and housing-density types. Vacationers in Sussex County are visible in the large number of housing units ACS counts as "vacant: For seasonal, recreational, or occasional use".

Table I.B.1: 2015 Renter Outliers:

Milford North (Kent)	Diff County: 11.0% > 6.1% Outlier boundary
Felton (Kent)	Diff County: 7.1% > 6.2% Outlier boundary
Piedmont (New Castle)	Abroad: 7.3% > 5.5% Outlier boundary

Chart 1.B.1: Proportion of Renter Mobility, 2015

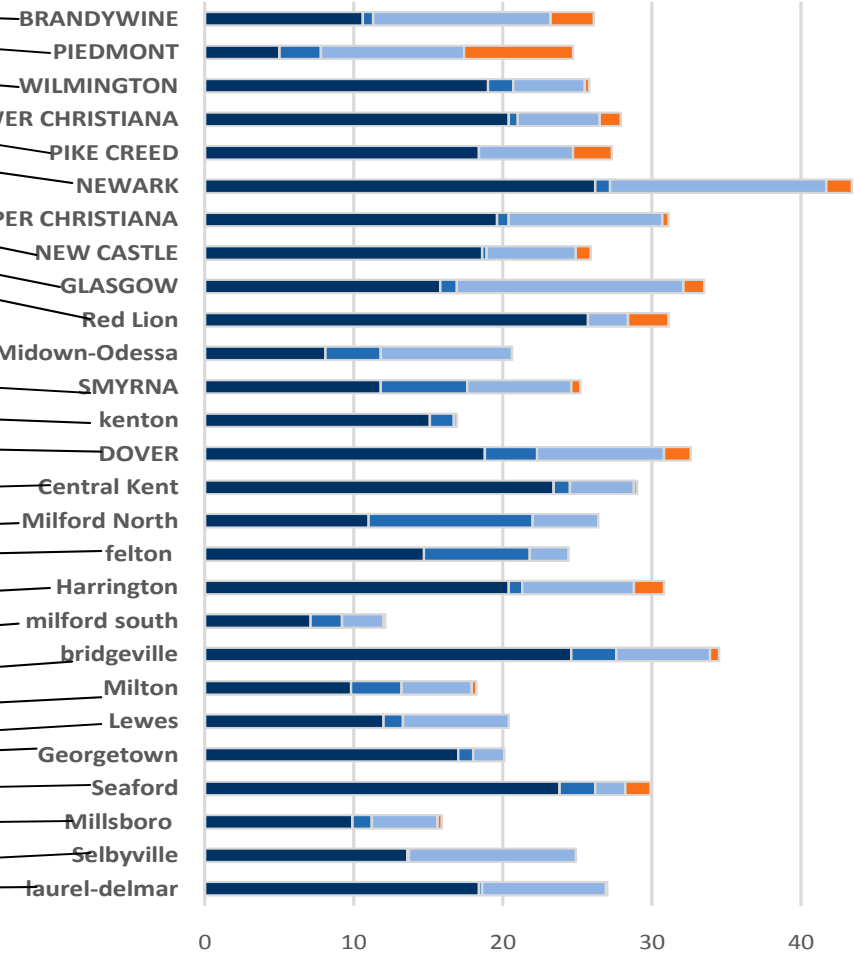
Delaware Census County Divisions



Source: tigerweb.geo.census.gov/tigerweb

**2015, % Renters moving
into Delaware Census County Divisons**

- Rent% within SameCounty
- Rent% from Different State
- Rent% from Different County
- Rent% from Abroad



Owner Mobility in 2015 in Urban or Rural areas:

Calculating our statistical distribution for 2015 Owners shows both Urban and New Castle County to have a median of total owner mobility at 6.1%, slightly below the full CCD-set of 6.4%. The Urban mean and that for New Castle County are at 6.2 and 6.3%, indicating a uniformity of Owners mobility in northern Delaware.

Kent County for 2011-2015 has total Owner Mobility of 6.5%, essentially the same as the full distribution, though the set of Intermediate-sized CCDs has a Median Mobility of 6.9%, a bit above the Median for the distribution of the full set of CCDs. The mean for the intermediate size CCDs is 7.3%, an additional indication that some mid-state areas are gaining population.

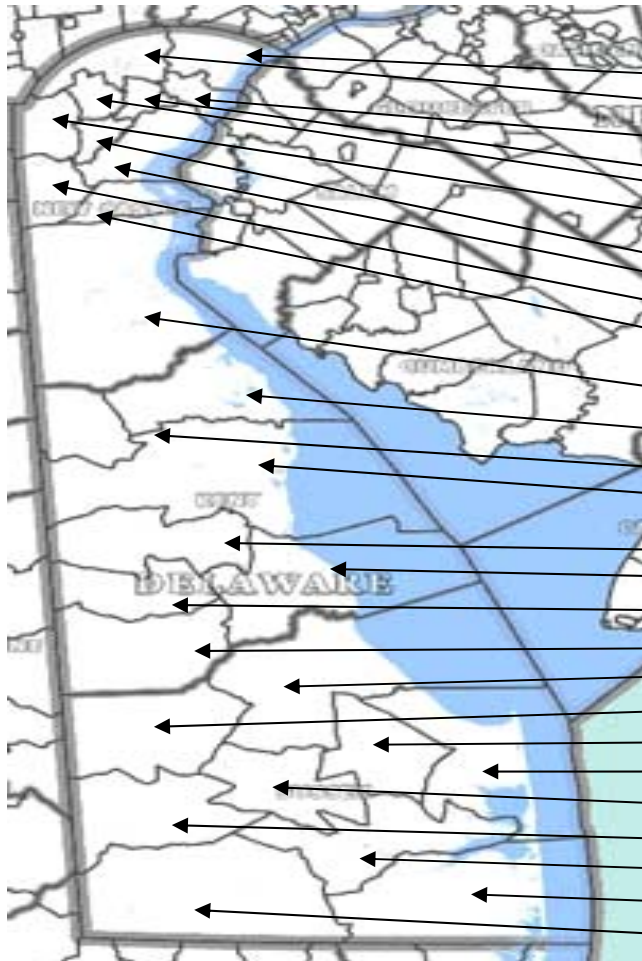
Owners moving to Millsboro from within Sussex County were an Outlier for purchasing within the Same County: 6.3% where the Outlier boundary is at 5.85%.

Table I.B.2: 2015 Owner Outliers:

Red Lion(New Castle)	Total Movers 10.8% > 10.1%Outlier boundary
Millsboro (Sussex)	Same County: 6.3% > 5.85% Outlier boundary
Harrington (Kent)	Diff County: 3.3% > 1.8% Outlier boundary
Red Lion(New Castle)	Abroad: 1.56 > 0.6% Outlier boundary
Milton (Sussex)	Abroad: 1.6% > 0.55% Outlier boundary

Chart I.B.2: Proportion of Owner Mobility, 2015

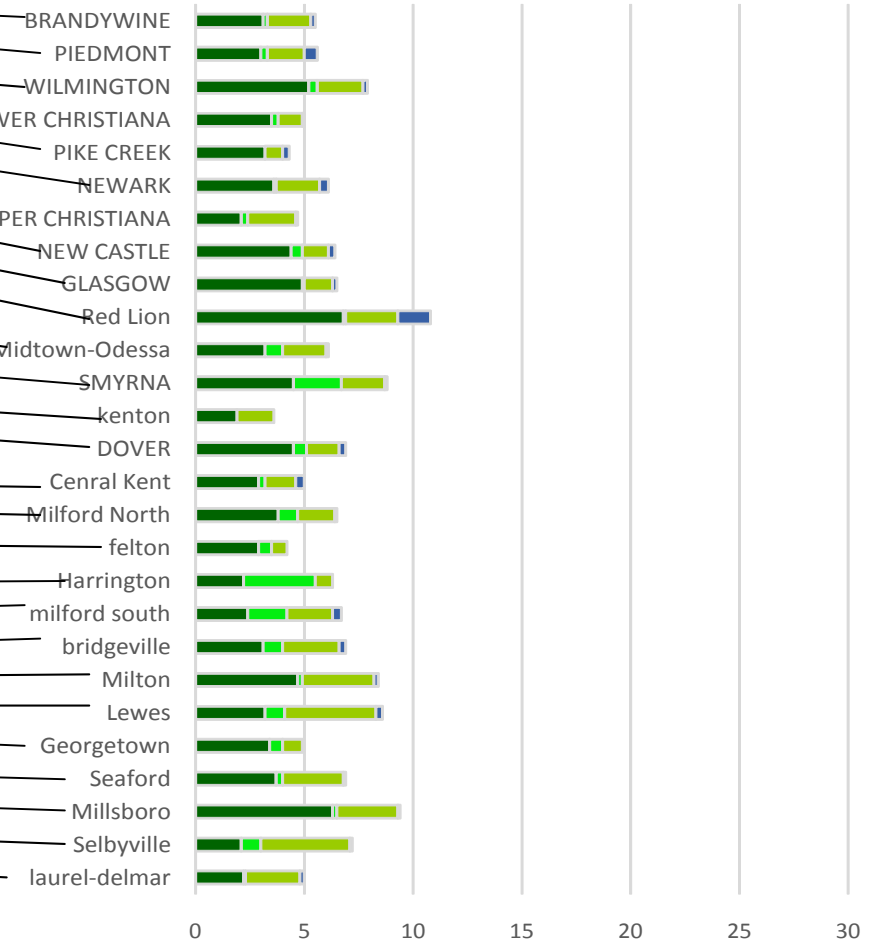
Delaware Census County Divisions



Source: tigerweb.geo.census.gov/tigerweb

**2015 % Owners moving
into Delaware Census County Divisions**

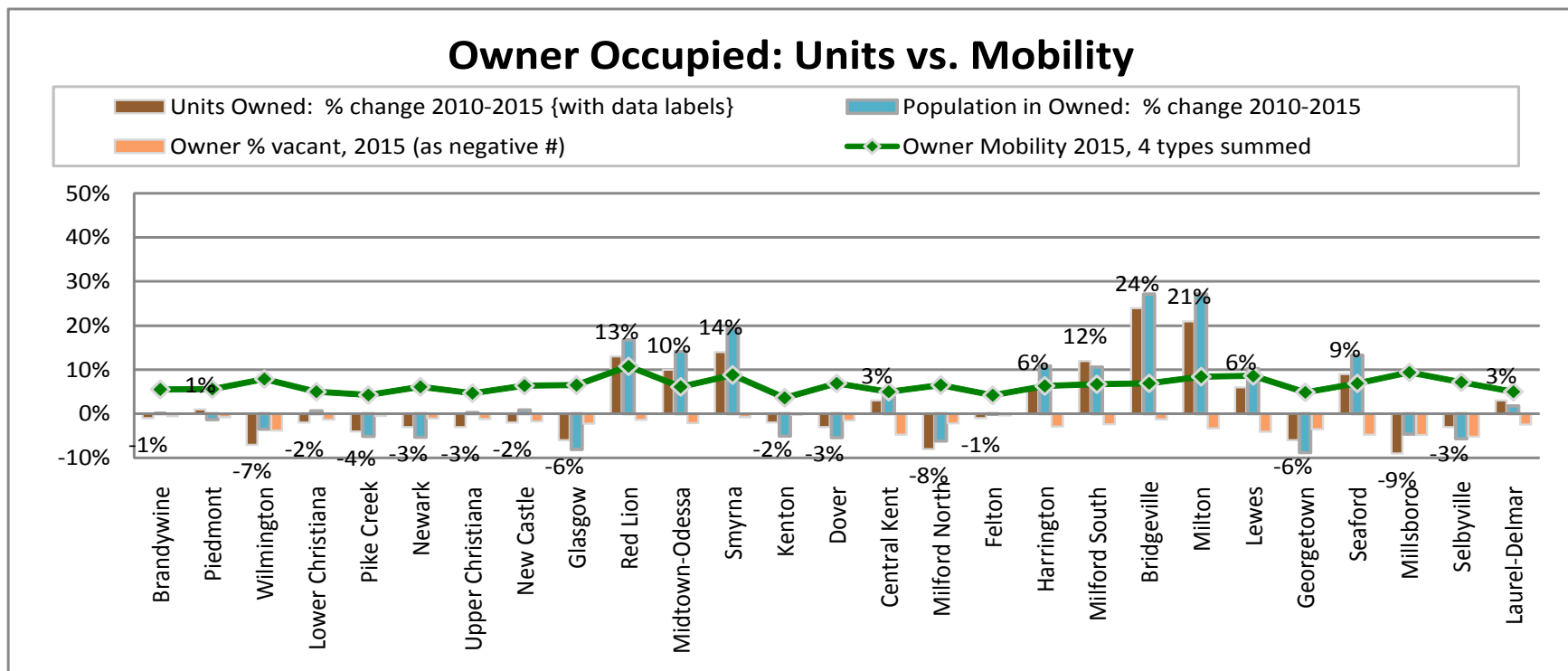
■ Owner% from Same County ■ Owner% from Diff County
■ Owner% from Diff State ■ Owner% from Abroad



I.C:Mobility in perspective with Housing Units, Vacancy and Population

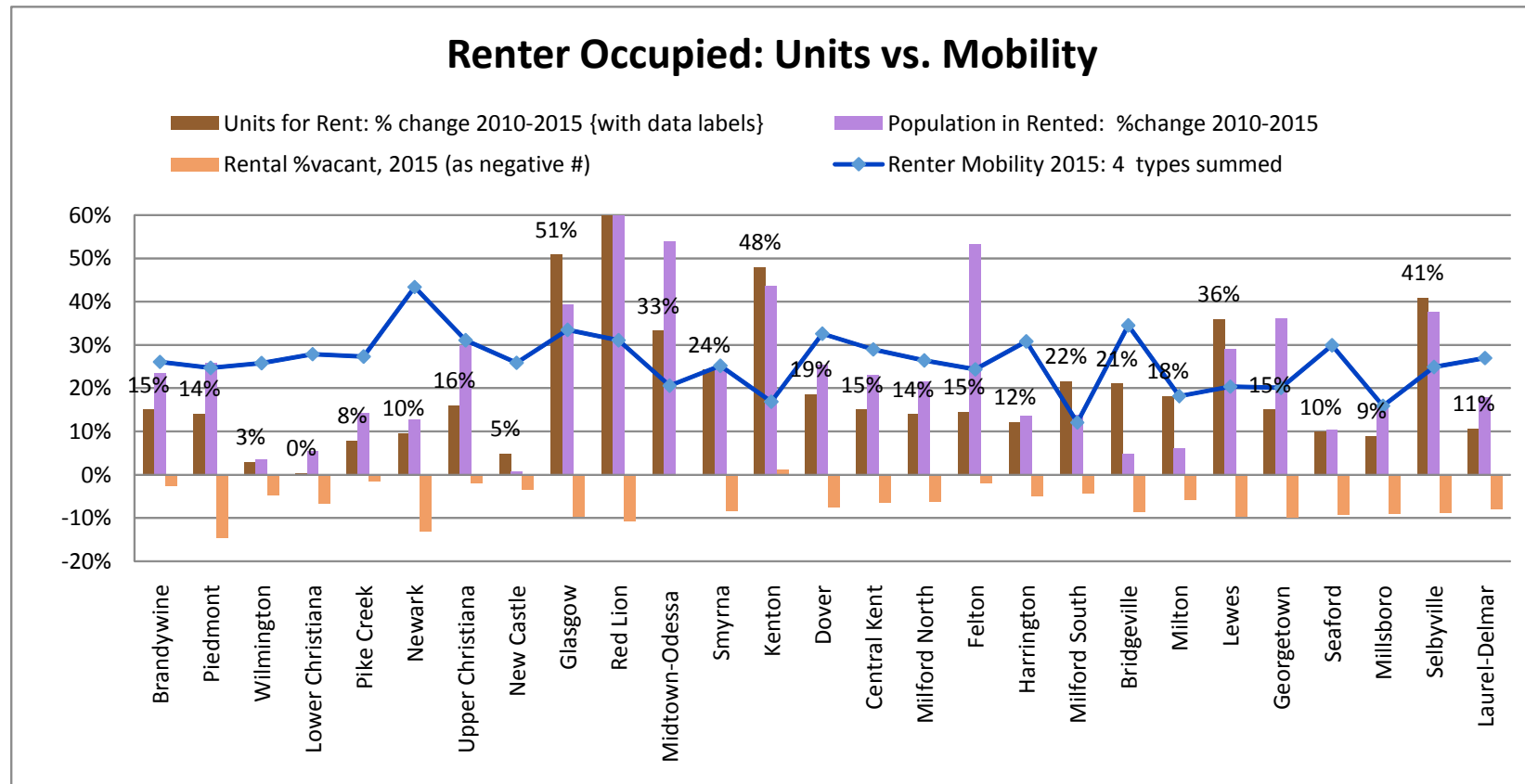
Three additional ACS Tables are introduced: (1) Occupied Housing Units by Tenancy, from ACS Table B25003; (2) the Population in Occupied Housing, Owned and Rented, from ACS Table B25008, and (3) Vacant Housing Units, for rent and for sale, from ACS Table B25004, in order to graph Mobility against occupied units. Also displayed in the separate Owner and Renter charts is the percent of housing units in the 2011-2015 timeframe that were vacant and offered for rent or purchase B25004. A number of residential categories in B25004 are vacant, but not listed as available.

Chart I.C.1: Total Owner Mobility compared with Housing Units, Vacancy and Population



While Owner Units were comparatively stable, Rental development grew in several areas, particularly in Kent and Sussex counties.

Chart I.C.2: Total Renter Mobility compared with Housing Units, Vacancy and Population



Many recent Annual Reports of Delaware's State Planning Commission confirm significant residential development activity, describing the flurry of residential and commercial building that peaked in 2008.ⁱⁱ Both at the Development Approval initial level, and then at the "getting ready to start construction", Building Permit level in the local community, strong numbers of units were initiated, particularly in Kent and Sussex counties.

Table 1.C.1: Residential Units approved by Development Application

	2008	2009	2010	Total
New Castle County	3,070	367	3,989	7,416
Kent County	3,536	1,525	563	5,624
Sussex County	3,716	2,538	1,535	7,791
Year Totals	10,324	4,420	6,087	20,831

Table 1.C.2: Residential Units approved by Building Permit

	2008	2009	2010	Total
New Castle County	974	770	784	2,528
Kent County	1,246	698	579	2,518
Sussex County	1,723	1,700	1,555	4,978
Year Totals	3,943	3,163	2,918	10,024

I.D: Native vs. Foreign-born Mobility

Additionally, in the 2011-2015 timeframe, the primary mobility file, ACS Table S0701, includes our four (4) Mobility categories, while identifying the incoming population as **Citizens or Not**:

Native-born United States citizens, i.e., born within the U. S. or its far-flung territories;

Naturalized Citizens, those who have gone through the process to become Citizens; and

Foreign-born population, of all ages, who the ACS survey reports have moved into an area.

A reason to parse these numbers was that the category, “Moved from Abroad” appeared strong in the Red Lion CCD, not an urban area that could expect foreigners’ attention. And yes, a number of returning-home Natives are included in that category. These data components do not distinguish between Renters and Owners.

Table I.D.1: 2015 Citizen v. Foreign Outliers:

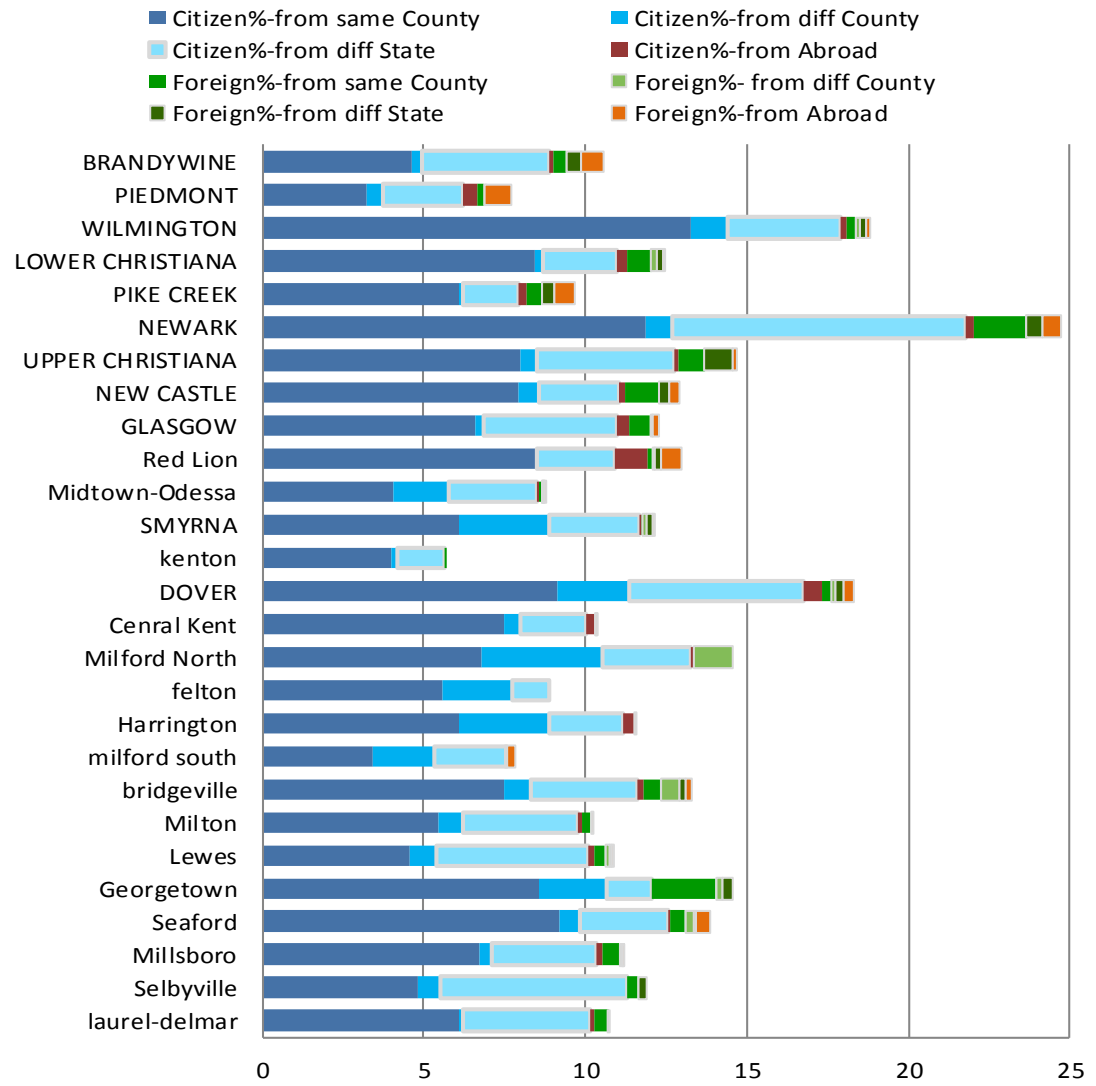
Wilmington (New Castle)	Total Citizen Movers 18.1% > 15.8%Outlier boundary
Newark (New Castle)	Total Citizen Movers 22.0% > 15.8%Outlier boundary
Wilmington (New Castle)	Citizens Same County: 13.3% > 12.8% Outlier boundary
Newark (New Castle)	Citizens Diff State: 9.1% > 6.5% Outlier boundary
Red Lion (New Castle)	Citizens from Abroad: 1.0 > 0.6% Outlier boundary
Newark (New Castle)	Foreign Same County: 1.6% > 1.2% Outlier boundary
Georgetown(Sussex)	Foreign Same County: 2.0% > 1.2% Outlier boundary
Milford North (Kent)	Foreign Diff County: 1.2% > 0.3% Outlier boundary
Bridgeville (Sussex)	Foreign Diff County: 0.6% > 0.3% Outlier boundary
Upper Christiana (New Castle)	Foreign Diff State: 0.9% > 0.6% Outlier boundary

Chart I.D.1: Mobility of Citizens vs. Foreign, not-Naturalized

Delaware Census County Divisions



**Mobility into Delaware CCDs, 2015,
Citizen and Foreign**



Part II: Mobility's Social and Economic Characteristics

A. Median Age (1) and Age Quintiles (2)

B. Education

C. Median Income, by Place of Birth: Delaware, National or Foreign Born

D. Mobility of Poverty

Summary

Appendix

A. Salary Bands for County residents

II.A.1: Median Age

Median Age remains virtually constant in the counties and in most of the Census County Division, while mobile folks move from the four basic mobility geographies.

Also, for both “Movers within the Same County” and “all Residents”, the mean is very close to the median, indicating no appreciable skew from the center.

- For Movers in both 2010 and 2015, the Median Age is 28 years
- For Residents in both 2010 and 2015, the Median Age is 39 years.

Chart Introduction:

The four charts below use a two-hue, three shade color scheme to represent changes in Median Age, “green” for younger, and a series of blue-gray shadings, for older. The calculated result between 2010 and 2015 had to score above 66% of the earlier period’s ACS standard deviation, as a minimum for signaling change.

The two right-hand columns report median age for Residents, the same numbers repeating in all four charts. There are two CCDs which appear to be aging, Lewes and Milton in Sussex, and one that appears to be getting younger, Felton in Kent.

Chart II.A.1: Median Age of Movers within the Same County, 2010 to 2015, and Residents, 2010 to 2015

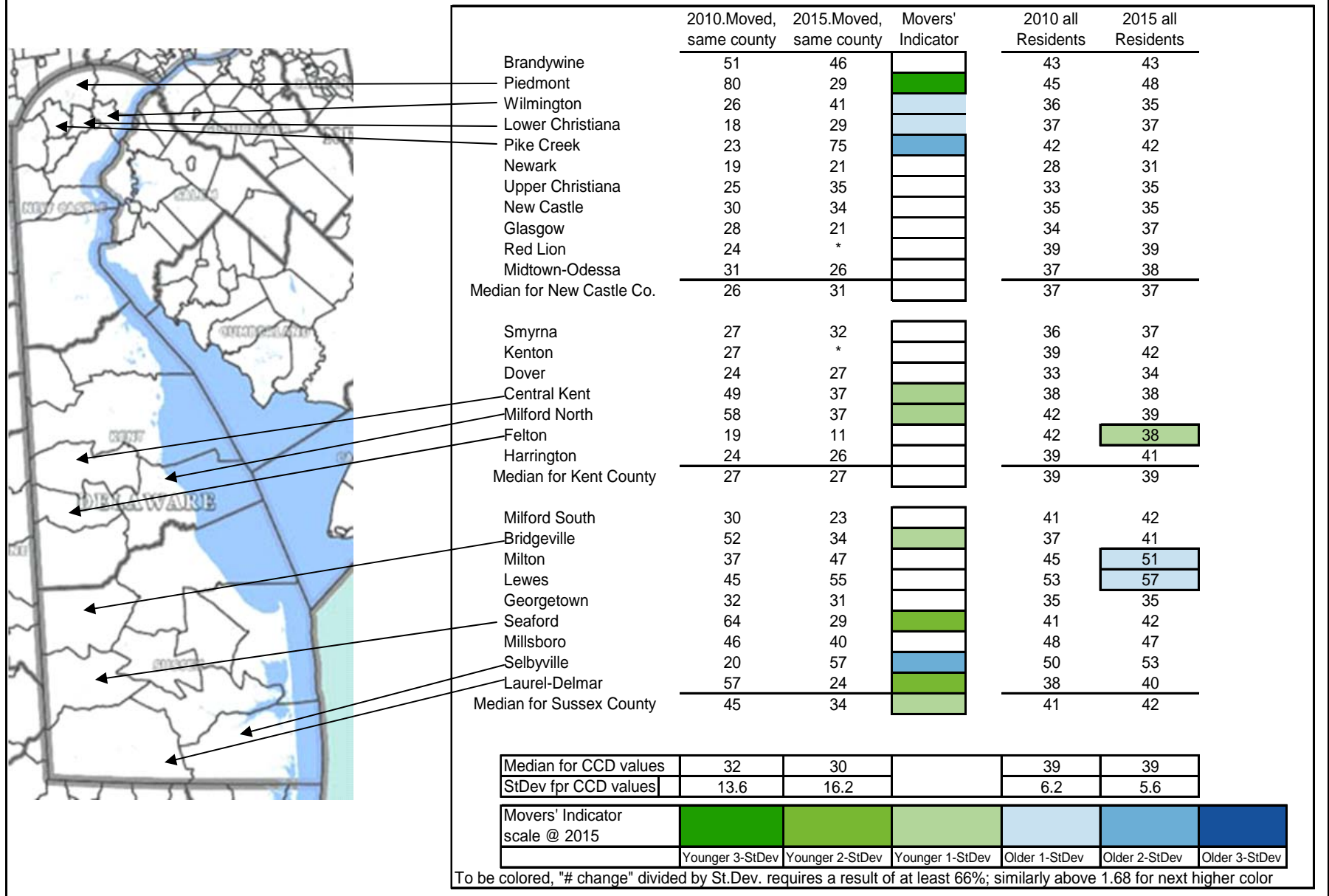


Chart II.A.2: Median Age of Movers from Diff County, 2010 to 2015, and Residents, 2010 to 2015

	2010.Moved	2015.Moved	Movers'	2010 all	2015 all
	Diff county	Diff county	Indicator	Residents	Residents
BRANDYWINE	51	46		43	43
PIEDMONT	80	29		45	48
WILMINGTON	26	41		36	35
LOWER CHRISTIANA	18	29		37	37
PIKE CREEK	23	75		42	42
NEWARK	19	21		28	31
UPPER CHRISTIANA	25	35		33	35
NEW CASTLE	30	34		35	35
GLASGOW	28	21		34	37
Red Lion	24	*		39	39
Midtown-Odessa	31	26		37	38
Median for New Castle Co.	26	31		37	37
SMYRNA	27	32		36	37
Kenton	27	*		39	42
DOVER	24	27		33	34
Central Kent	49	37		38	38
Milford North	58	37		42	39
felton	19	11		42	38
Harrington	24	26		39	41
Median for Kent County	27	30		39	38
milford south	30	23		41	42
bridgeville	52	34		37	41
Milton	37	47		45	51
Lewes	45	55		53	57
Georgetown	32	31		35	35
Seaford	64	29		41	42
Millsboro	46	40		48	47
Selbyville	20	57		50	53
laurel-delmar	57	24		38	40
Median for Sussex County	45	34		41	42

Median for CCD values	30	32		39	39
StDev fpr CCD values	16	13		5.6	6.2
Movers' Indicator scale @ 2015					
	Younger 3-StDev	Younger 2-StDev	Younger 1-StDev	Older 1-StDev	Older 2-StDev

Chart II.A.3: Median Age of Movers from Diff State, 2010 to 2015, and Residents, 2010 to 2015

	2010.Moved Diff State	2015.Moved Diff State	Movers' Indicator	2010 all Residents	2015 all Residents
Geography					
BRANDYWINE	30	31		43	43
PIEDMONT	31	30		45	48
WILMINGTON	28	28		36	35
LOWER CHRISTIANA	28	28		37	37
PIKE CREEK	31	26		42	42
NEWARK	20	21		28	31
UPPER CHRISTIANA	29	28		33	35
NEW CASTLE	28	31		35	35
GLASGOW	31	31		34	37
Red Lion	26	38		39	39
Midtown-Odessa	36	47		37	38
Median for New Castle Co.	29	30		37	37
SMYRNA	33	38		36	37
Kenton	35	41		39	42
DOVER	22	21		33	34
Central Kent	26	37		38	38
Milford North	23	53		42	39
felton	49	36		42	38
Harrington	47	21		39	41
Median for Kent County	33	37		39	38
milford south	44	30		41	42
bridgeville	53	31		37	41
Milton	48	58		45	51
Lewes	50	55		53	57
Georgetown	32	30		35	35
Seaford	35	37		41	42
Millsboro	41	41		48	47
Selbyville	39	54		50	53
laurel-delmar	26	31		38	40
Median for Sussex County	41	37		41	42
Median for CCD values	31.0	30.7		39	39
StDev fpr CCD values	9.3	10.5		5.6	6.2
Movers' Indicator scale @ 2015					
	Younger 3-StDev	Younger 2-StDev	Younger 1-StDev	Older 1-StDev	Older 2-StDev

Chart II.A.4: Median Age of Movers from Abroad, 2010 to 2015, and Residents, 2010 to 2015

	2010.Moved Diff State	2015.Moved Diff State	Movers' Indicator	2010 all Residents	2015 all Residents
BRANDYWINE	24	31		43	43
PIEDMONT	31	49		45	48
WILMINGTON	29	33		36	35
LOWER CHRISTIANA	24	37		37	37
PIKE CREEK	32	32		42	42
NEWARK	23	27		28	31
UPPER CHRISTIANA	27	29		33	35
NEW CASTLE	24	29		35	35
GLASGOW	49	30		34	37
Red Lion	*	74		39	39
Midtown-Odessa	19	41		37	38
Median for New Castle Co.	26	32		37	37
SMYRNA	34	34		36	37
Kenton	*	*		39	42
DOVER	30	29		33	34
Central Kent	27	60		38	38
Milford North	59	*		42	39
felton	*	*		42	38
Harrington	*	17		39	41
Median for Kent County	32	31		39	38
milford south	22	41		41	42
bridgeville	*	60		37	41
Milton	32	38		45	51
Lewes	23	36		53	57
Georgetown	23	*		35	35
Seaford	33	53		41	42
Millsboro	20	60		48	47
Selbyville	30	*		50	53
laurel-delmar	47	30		38	40
Median for Sussex County	27	41		41	42
Median for CCD values	28	35		39	39
StDev fpr CCD values	10.0	13.9		5.6	6.2
Movers' Indicator scale @ 2015					
	Younger 3-StDev	Younger 2-StDev	Younger 1-StDev	Older 1-StDev	Older 2-StDev

II.A.2: Age Quintiles

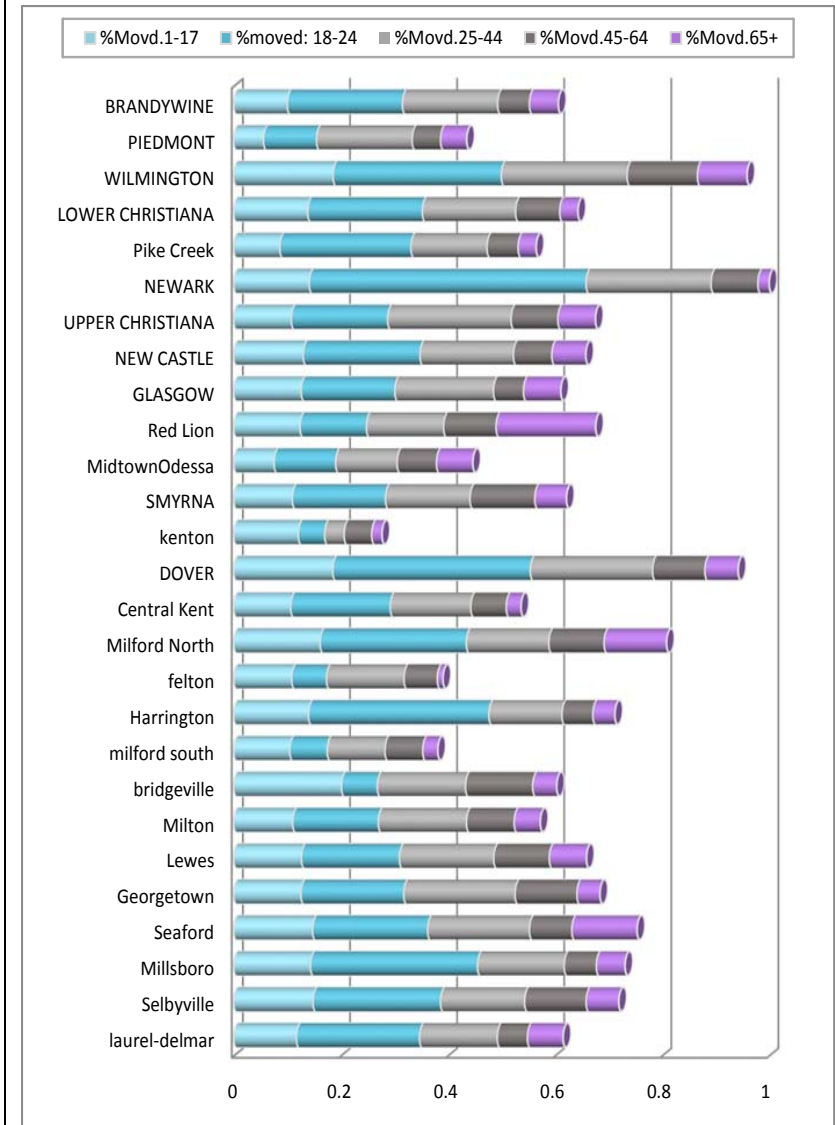
The chart in this section cumulates five age-related groupings from the primary ACS Mobility Table, S0701. Here are the five age cohorts: 1-17; 18-24; 25-44; 45-64; and 65+.

The most volatile age-cohort is 18-24, which has a median mobility of 19%. An ACS Census report determined that this cohort experiences

- (a) post-secondary education,
 - (b) getting a job,
 - (c) getting married, or
 - (d) having childrenⁱⁱⁱ,
- all of which could require a change in housing.

The principal Outlier in this age cohort is Newark, with a 52% Mobility. Dover, with 37% Mobility for this age group, just avoids being an Outlier. The 25-44 cohort has a Median of 16% and even the youngest cohort, 1-17, has a Median of 13%.

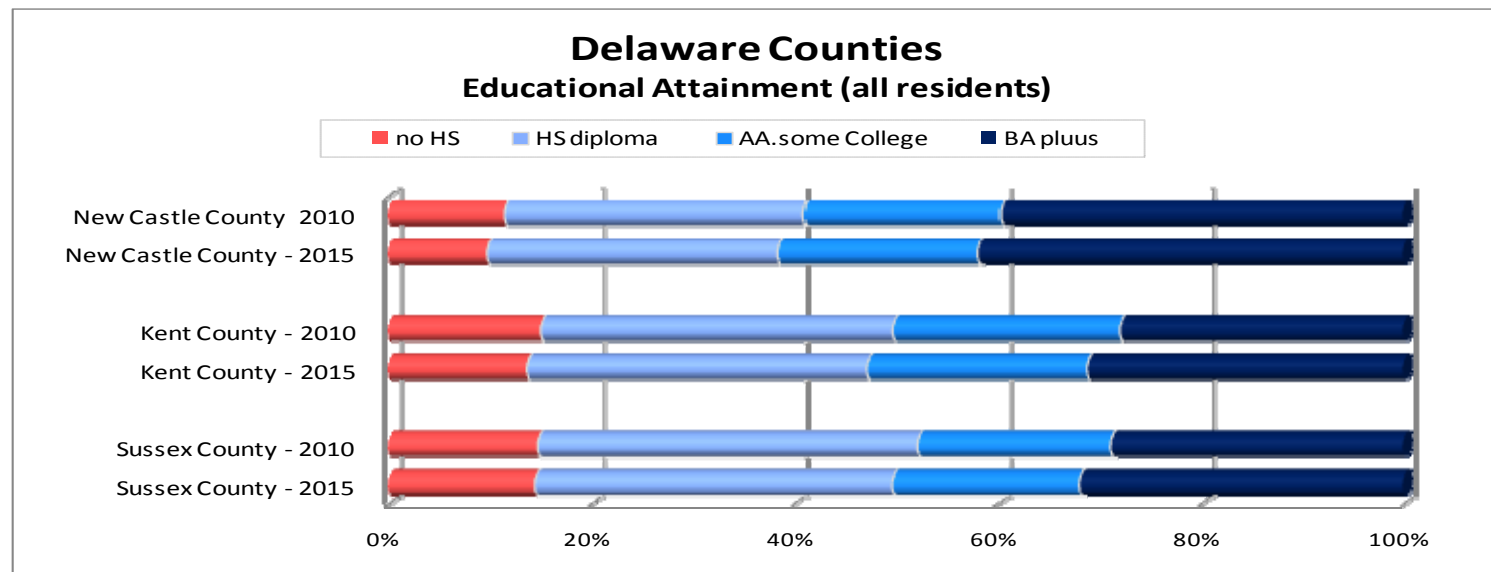
Chart II.A.5: Age Quintiles for 2015 ACS Mobility



II.B: Educational Attainment

Educational Attainment for Delaware residents is summarized in a bar chart by county, for four basic Education categories: (a) Lacking a HS diploma; (b) completion of a HS diploma or GED; (c) some college, including an AA degree; and (d) a BA degree or more advanced college degree, including professional programs. The data for 2006-2010 and 2011-2015 appear to remain almost constant while mobile folks move into the twenty-seven (27) CCDs. However, the proportion of residents holding a “BA or above” improves in all three Delaware counties by the 2011-2015 timeframe.

Chart II.B.1: Educational Attainment, 2010 to 2015 in Delaware



Movers “within the Same County” and “from a Different State” carry the most numbers, the first accounting for almost 50% of Mobility and “from a Different State”, for approximately 30%. Thus, “from a Different County” and “from Abroad”, with quite small numbers, no charts were developed for them.

Chart II.B.2: Educational Attainment, Mobility within the Same County

Census County Division (URBAN v rural)	no HS, 2015 %	Δ from 2010	HS dip, 2015 %	AA.someCol 2015 %	BA+, 2015 %	Δ from 2010
BRANDYWINE	24		17	23	37	
PIEDMONT	26		24	12	39	
WILMINGTON	27		20	19	34	
LOWER CHRISTIANA	15		25	24	35	
Pike Creek	33		23	21	24	
NEWARK	19		19	22	40	
UPPER CHRISTIANA	15		26	21	38	
NEW CASTLE	24		17	20	40	
GLASGOW	23		22	19	36	
Red Lion	18		19	6	57	
MidtownOdessa	19		26	21	34	
SMYRNA	37		19	10	34	
kenton	18		27	17	39	
DOVER	26		24	24	27	
Central Kent	14		34	29	24	
Milford North	39		13	14	34	
felton	10		31	37	22	
Harrington	30		10	18	42	
milford south	48		13	16	24	
bridgeville	43		23	12	23	
Milton	11		20	11	58	
Lewes	20		27	9	43	
Georgetown	21		20	21	38	
Seaford	28		21	14	37	
Millsboro	29		13	19	39	
Selbyville	29		19	29	22	
laurel-delmar	26		19	15	40	
Median for CCD values	23.9		20.3	18.8	36.9	
StDev fpr CCD values	9.4		5.6	6.7	9.2	
Movers' Indicator scale @ 2015						
	2-StDev Slipping	1-StDev Slipping	1-StDev Imprpv	2-StDev Improvement		

Because these Movers are mobile within the Same County, they have little if any affect on county proportions between 2010 and 2015.

But they are an indication of the Educational success of those moving within the same county.

The calculation of
% change / St Dev
required a minimum result of
66% to “gain” a flag for either
improved or slipping education.

Chart H.B.3: Educational Attainment, Mobility from Different State

	% no HS. 2015	Δ from 2010	% HS Gr. 2015	% AA from Co. '15	% BA. 2015	Δ from 2010
BRANDYWINE	20		15	15	50	
PELHAM	10		34	28	38	
WILMINGTON	18		13	17	59	
LOWER CHRISTIANA	8		9	9	74	
Pike Creek	8		4	19	70	
NEWARK	11		15	22	52	
UPPER CHRISTIANA	1		7	16	76	
NEW CASTLE	9		9	30	59	
GLASGOW	17		13	10	61	
Rec Lion	47		20	13	21	
MCDONALD	21		19	11	39	
SUTTON	34		30	11	15	
kenton	4		14	82	0	
DOVER	16		10	24	50	
Central Kent	34		9	48	8	
Milford North	0		7	32	61	
fe ton	47		0	10	33	
Harrington	0		17	41	41	
Milford South	8		18	12	58	
bridgeville	10		17	35	38	
Milton	14		17	13	46	
Lewes	11		16	10	53	
Georgetown	10		40	42	8	
Seaford	12		20	6	62	
Milford	15		15	12	48	
Seaboard	22		17	17	45	
Wilmington	28		15	10	47	
Median for CCD values	11.1		15.2	21.4	47.5	
StDev for CCD values	12.9		8.6	15.6	22.2	
Moners Indicator scale @ 2015						
	2-25th %ile	25th-50th %ile	50th-75th %ile	75th-100th %ile		

II.C: Median Income

When Mobility data for income proved to include only very partial data, as might be expected with a mobile population, ACS Table, B06011, Median Income by Place Born, offered some perspective in how income was reflected within Delaware Census County Divisions. Not surprisingly, areas which experienced substantial population in-flows also saw changes in reported Income.

The median income data set for Natives born Abroad identified only a quite small proportion of the total population, and is not included in the chart below.

The Delta Δ , of growing or diminishing income, between 2006-2010 and 2011-2015, is indicated by a color range, but does not yield any particularly strong pattern of change.

Please note that this income report from the Census Bureau includes individuals as young as 15 years old, which entry age can have the effect of lowering the total median earnings. Each year is Inflation-Adjusted only for its own year, and not aligned against each other, for the loss of purchasing power in this comparison between 2006-2010 and 2011-2015.

Chart N.C.1: Median Income by Place of Birth in the United States and Abroad

Census County Division	2010 Median Income	2015 Median Income	% Change	2010 Median Income	2015 Median Income	% Change	2010 Median Income	2015 Median Income	% Change	2010 Median Income	2015 Median Income	% Change
				US born	US born		US born	US born		Abroad	Abroad	
BRANDYWINE	37328	37752		31645	31812		42388	41552		37626	38441	
FREDERICK	32111	31158		42532	38284		38843	38890		72147	64774	
WILMINGTON	22828	25285		21853	23245		27481	28855		20184	23580	
LOWER CHRISTIANA	28281	28184		28875	32545		28778	32878		22588	22244	
PINE CREEK	35878	34842		33218	35858		38888	40027		33441	32821	
NEWARK	25823	25882		27252	25172		24181	25181		28328	27787	
UPPER CHRISTIANA	38830	34888		32851	31540		38850	38788		40281	41728	
NEW CASTLE	28283	28334		28488	28835		38520	32785		23438	28388	
GLASGOW	38548	40842		34378	38581		43788	43028		38871	45478	
Red Lion	32282	37877		28813	37125		38818	37282		80472	38484	
Midtown/Downtown	35814	--		32183	--		38831	--		31180	--	
Median for New Castle Co.	33,820	35,865		31,645	31,812		36,618	37,213		33,441	36,281	
SALINA	30141	32333		28885	31777		28877	32882		33750	27084	
Kenton	38223	--		28288	--		38888	--		42881	--	
DOVER	25751	25204		23275	21551		28282	27351		23282	23887	
Centre Kent	30931	28208		27828	27888		34813	31737		23233	22743	
Midford North	22110	29418		24248	28417		24318	27483		17838	23728	
Wilton	25888	--		21881	--		27313	--		38821	--	
Hamington	28314	--		24235	--		28188	--		34417	--	
Median for Kent County	28,314	27,313		24,248	28,808		28,282	28,813		33,750	28,347	
Midford South	28091	28835		28835	22838		28442	27232		28804	24078	
Wedgesville	25381	23821		26758	23055		24338	24211		24187	24500	
Midcon	28512	30188		28888	28245		31208	31887		17383	18887	
Leves	28825	31320		28200	27738		30848	32857		21787	28750	
Georgetown	21832	23813		23488	23333		23574	28882		20238	23245	
Seaford	23883	25888		21553	27330		28433	25840		24724	25171	
Midshore	24070	24814		22844	25235		25124	24237		20423	28875	
Seaboard	27230	30045		24250	28323		28594	32832		21331	19885	
Seaside	27281	29488		25277	27238		28848	24485		30138	17312	
Median for Sussex County	28,451	28,335		24,784	28,780		27,314	28,881		21,358	23,873	
Median for CC Divisions	27,281	28,288		28,855	27,390		28,778	31,737		25,433		
Median for CC Divisions	8,584	8,785		4,877	4,737		7,523	7,882		12,884		
Movers' net change @ 2015												
	Poorer 3-Index	Poorer 2-Index	Poorer 1-Index	Worse 1-Index	Worse 2-Index	Worse 3-Index						

Strong changes with specific CDC team of research and analysis on income data.

II.D. Poverty and Mobility

Surprisingly there are few Outliers for this 2011-2015 series:

Harrington is an Outlier for movers “within the same County” who subsist between 100-149% of the Federal Poverty Level.

Also, Georgetown is an Outlier within the same Poverty sector, for movers from “a Different State”.

Chart II.D.1: 2015 Mobility of Poverty and above 150% Federal Poverty Level

	Same County			Different State		
	% <100%Po	% 100-150%Po	% >150%Po	% <100%Po	% 100-150%Po	% >150%Po
Brandywine	13%	13%	74%	13%	12%	75%
Piedmont	2%	1%	98%	4%	8%	88%
Wilmington	36%	15%	49%	24%	16%	60%
Lower Christiana	32%	12%	57%	29%	7%	63%
Pike Creek	14%	17%	69%	2%	16%	82%
Newark	37%	8%	55%	38%	11%	51%
Upper Christiana	14%	11%	75%	1%	5%	94%
New Castle	20%	10%	70%	18%	8%	73%
Glasgow	4%	11%	85%	8%	2%	90%
Red Lion	4%	9%	87%	6%	0%	94%
Midtown-Odessa	11%	1%	87%	4%	0%	95%
Smyma	5%	11%	84%	31%	2%	67%
Kenton	9%	7%	84%	0%	2%	98%
Dover	22%	14%	63%	19%	15%	65%
Central Kent	23%	9%	68%	15%	16%	69%
Milford North	19%	11%	70%	25%	24%	51%
Felton	23%	9%	68%	21%	45%	34%
Harrington	29%	28%	43%	4%	4%	92%
Milford South	31%	20%	49%	14%	31%	55%
Bridgeville	33%	6%	61%	30%	29%	40%
Milton	11%	9%	80%	14%	5%	82%
Lewes	21%	3%	76%	5%	5%	90%
Georgetown	33%	7%	60%	9%	71%	20%
Seaford	23%	22%	55%	14%	0%	86%
Millsboro	15%	16%	69%	23%	9%	68%
Selbyville	15%	11%	73%	19%	8%	74%
Laurel-Delmar	31%	13%	57%	23%	19%	57%
Median	20%	11%	69%	14%	8%	73%
StDev	0.11	0.06	0.14	0.10	0.16	0.20

SUMMARY:

- A. This review of Mobility reveals that Renters are four (4) times as likely to move as Owners; that is,
- Renters have an across-the-state median of 28.6% in 2006-2010, 26% for 2011-2015, while
 - Owners have a statewide median of 6.6% during 2006-2010, 6.4% for 2011-2015.

Renters moving within the Same County constitute almost 60% of rental Mobility, 61% - 65% ('10-'15)
While Renters moving from a Different State compose ~25% of rental Mobility: 20% - 24% ('10 - '15)

For Owners, the “from” geography is similar to Renters: “within Same County” is 56% - 50% ('10 - '15)
While Owners “from a Different State” aggregate to 30%: 31% - 31% ('10 - '15)

Renters' Mobility is slightly higher in urban settings, than in rural or Intermediate-density areas.
But Owners' Mobility is slightly less than the statewide median in urban areas, while Owners in Kent County mirror the state's median distribution.

- B. ACS Mobility data has no correlation to (i) the Δ of housing units, or to (ii) the population Δ in CCDs
- C. Citizens return from Abroad to unexpected places like Red Lion (New Castle) and Piedmont, while foreigners locate to Milford North (Kent) and Georgetown (Sussex), though not surprising to Newark and Upper Christiana.
- D. Mobility has had little effect on Median Age in Delaware CCDs.
- E. In Education, the state generally has become home to more people with a BA degree or greater, but sectors still exist where the proportion of folks without a HS degree or equivalent do still aggregate.
- F. Median Income data, measured by Outliers, did not produce any noteworthy differences.

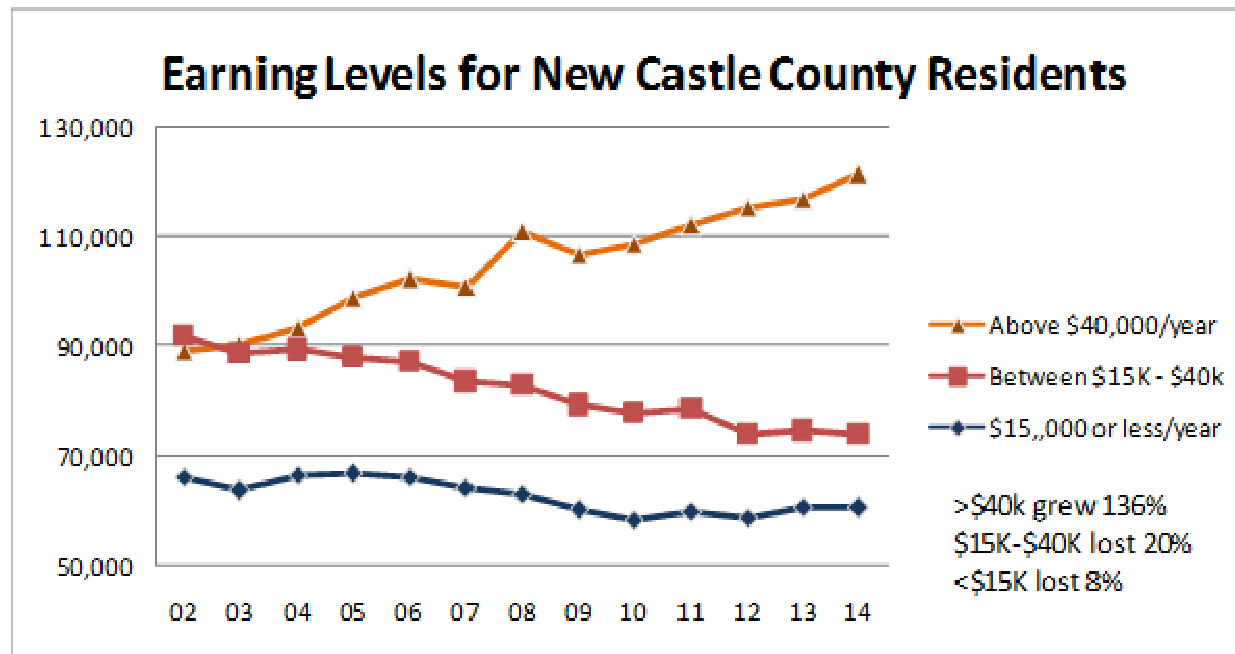
APPENDIX:

A: Salary Trends for Delaware's three counties

Using data from another Census Bureau resource, their On The Map administrative data website, salary reports for residents who live in the state's counties are reported in three income levels. For New Castle County, the number of mid-to-upper income jobs grew 136% from the data's 2002 starting point.

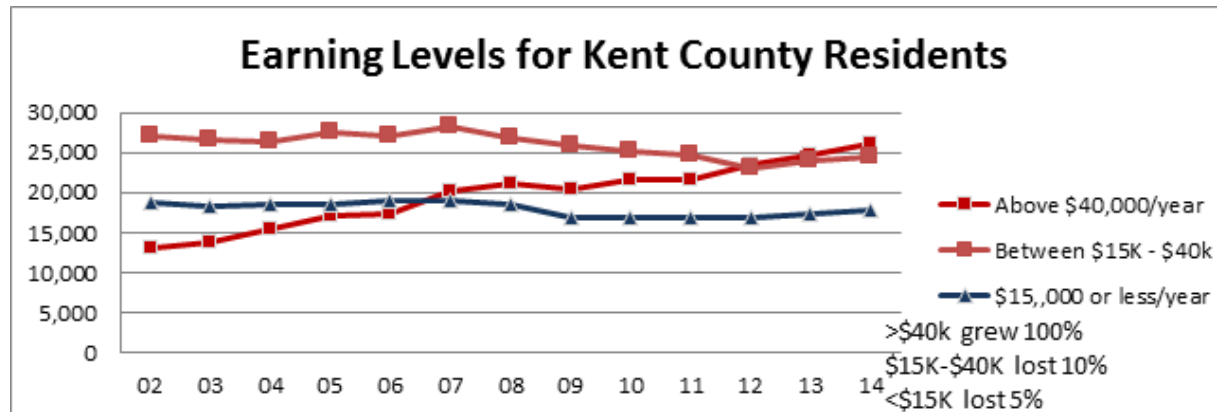
The number of entry-level jobs (\$15k - \$40k) lost almost 18,000 positions over these same twelve years. And very low-income jobs (< \$15k/year) did not fully recover to 2004 levels after its low point in 2010, losing almost 5,600 jobs

Appendix A, Chart 1: New Castle County Income Bands



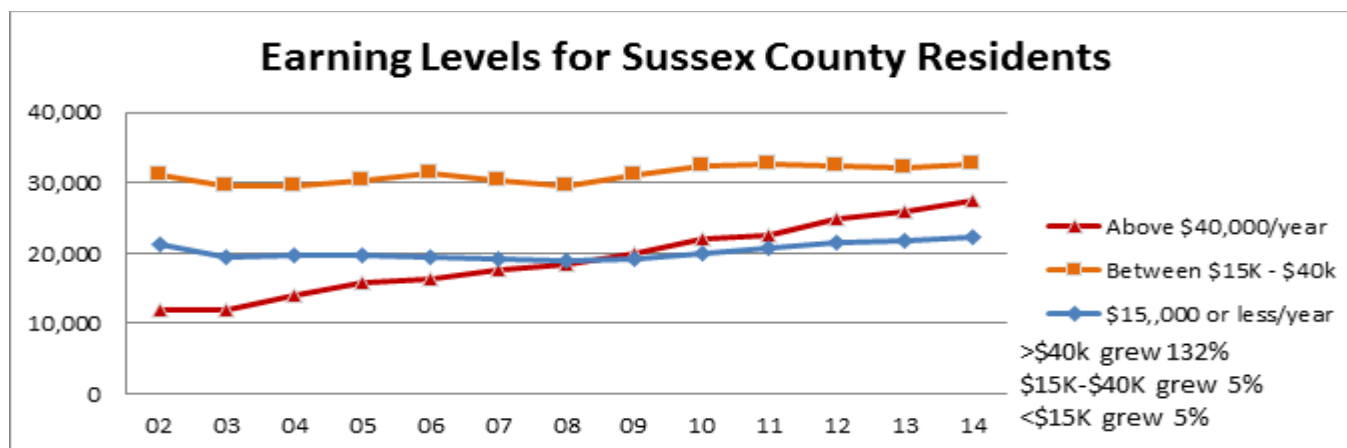
In both Kent and Sussex Counties, mid-to-upper income jobs grew at a steady pace from 2002 up to 2014. In Kent, both Entry level jobs and very low-level jobs (<\$15k/year) lost ground.

Appendix A, Chart 2: Kent County Income Bands



The number of entry-level jobs in Sussex remained fairly stable, gaining 5% over the report period, as did very low-level jobs in Sussex, over these twelve years.

Appendix A, Chart 3: Sussex County Income Bands



Notes:

ⁱ“Reason for Moving: 2012 to 2013: Population Characteristics”, by David Ihrke, Census Bureau, June 2014; also “Lifetime Mobility in the United States: 2010”, American Community Survey Brief ACSB 10-07.

It is important to distinguish between the personal detail available through the Annual Social and Economic Supplement (ASES) to the Current Population Survey (CPS) (see footnote ⁱⁱⁱ below), and data statistically developed for the American Community Survey estimates. The former uses personal diaries to solicit specific attitudes and various economic detail, while the quite small number of participants allows application only as a generalization about the national situation.

The American Community Survey, a shorter survey conducted across each city and region nationally, is able to capture what happened in people’s lives from a less personal perspective. That is, ACS can tell us the percent of the population that move in a specific time period, while ASES is able to detail the basic reasons people chose to move: housing, family, jobs or other.

ⁱⁱ 2011 Report on State Planning Issues.

http://stateplanning.delaware.gov/information/documents/2011_cabinet_committee_annual_report.pdf;
Chosen to represent the ACS 2006-2010 timeframe.

ⁱⁱⁱ“Young Adult Migration: 2007-2009 to 2010-2012”, American Community Survey Reports (ACS31), March 2015, p.1

Author contact:

jillcoghlan@gmail.com