Wealth Transfer in Pennsylvania 2016

February 2016

Introduction

In 2008, the Center for Rural Pennsylvania published the first Transfer of Wealth (TOW) analysis of Pennsylvania to spark conversations about the magnitude of the assets present in every county of the commonwealth and the opportunities to invest a small portion of those assets toward community betterment projects.

Since that first analysis, much has changed in Pennsylvania and the U.S. This TOW study integrated those changes into its estimates, as well as historical trends and key assumptions about the future, to develop more current estimates for this intergenerational transfer of wealth.

As before, these trends offer significant opportunities for many communities to create and/or expand community foundations and endowments capable of supporting community improvement work over time.

Results

Between 2010 and 2060, the Center for Rural Entrenpreneurship, which completed the TOW analysis, estimates that $84 trillion (in 2015 dollars) will transfer from one generation to another in the U.S. In the coming decade of 2016 through 2025, the TOW opportunity is more than $7 trillion nationwide.

2015 Transfer of Wealth Opportunity for Pennsylvania

2015 Current Net Worth
$3.1 Trillion

10-Year (2016 – 2025) TOW Opportunity
$310 Billion

50-Year (2016 – 2065) TOW Opportunity
$2.6 Trillion

In Pennsylvania, the researchers estimate the 2015 household current net worth to be $3.1 trillion. In the coming decade, the researchers estimate that $310 billion will transfer from one generation to another: about $67 billion of which will be transferred in rural counties and about $242 billion in urban counties. According to this TOW analysis, and as shown in Table 1 on Pages 2 and 3, each of Pennsylvania's 67 counties is estimated to realize a transfer of wealth, ranging from $100 million to $37 billion, over the coming decade.

To illustrate the philanthropic potential associated with the commonwealth's 10-year and 50-year TOW opportunities, consider that a 5 percent giving goal realized over the coming decade would yield $15.5 billion. A 5 percent giving goal realized the over the next two generations would yield $130 billion.

The Center for Rural Pennsylvania
A Legislative Agency of the Pennsylvania General Assembly

This project was sponsored by the Center for Rural Pennsylvania, a legislative agency of the Pennsylvania General Assembly.

The Center for Rural Pennsylvania is a bipartisan, bicameral legislative agency that serves as a resource for rural policy within the Pennsylvania General Assembly. It was created in 1987 under Act 16, the Rural Revitalization Act, to promote and sustain the vitality of Pennsylvania's rural and small communities.

For more information, contact the Center for Rural Pennsylvania, 625 Forster St., Room 902, Harrisburg, PA 17120, (717) 787-9555, www.rural.palegislature.us.

Table 1. Summary Findings

	2015 Net Worth		10-Year (2016-2025) TOW				50-Year (2016-2065) TOW			
	Value (B)	Phh	Value (B)	Phh	5% Capture (M)	5% Payout (M)	Value (B)	Phh	5% Capture (B)	5% Payout (M)
Pennsylvania	$3,114.64	$610,565	$309.92	$60,754	$15,496.18	$774.81	$2,637.51	$517,032	$131.88	$6,593.77
Urbanization										
Urban	$2,410.74	$650,183	$242.15	$65,309	$12,107.64	$605.38	$2,069.05	$558,030	$103.45	$5,172.64
Rural	$703.91	$505,150	$67.77	$48,635	$3,388.53	$169.43	$568.45	$407,943	$28.42	$1,421.14
Marcellus										
High	$133.93	$411,648	$13.10	$40,261	$654.96	$32.75	$120.47	$370,252	$6.02	$301.16
Medium	$197.31	$810,116	$18.07	$74,209	$903.70	$45.18	$154.58	$634,683	$7.73	$386.45
Low	$762.49	$455,697	$73.78	$44,093	$3,688.91	$184.45	$579.86	$346,547	$28.99	$1,449.64
None	$2,020.92	$716,614	$204.97	$72,683	$10,248.62	$512.43	$1,782.61	$632,111	$89.13	$4,456.52
County										
Adams	$23.21	$594,928	$2.51	$64,281	$125.37	$6.27	$20.32	$520,795	$1.02	$50.79
Allegheny	$345.86	$640,622	$36.33	$67,284	$1,816.26	$90.81	$287.32	$532,191	$14.37	$718.30
Armstrong	$11.67	$449,064	$1.17	$41,110	$58.74	$2.94	$10.13	$354,536	$0.51	$25.33
Beaver	$40.49	$564,238	$3.78	$52,629	$188.85	$9.44	$28.35	$395,076	$1.42	$70.88
Bedford	$6.85	$334,833	$0.54	$26,555	$27.15	$1.36	$4.18	$204,393	$0.21	$10.45
Berks	$94.17	$601,828	$9.07	$57,969	$453.55	$22.68	$76.74	$490,443	$3.84	$191.86
Blair	$21.43	$409,714	$1.67	$32,005	$83.70	$4.18	$13.08	$250,009	$0.65	$32.69
Bradford	$10.51	$472,842	$1.16	$45,327	$57.92	$2.90	$10.35	$405,061	$0.52	$25.88
Bucks	$241.95	$1,020,623	$25.83	$108,970	$1,291.62	$64.58	$222.61	$939,041	$11.13	$556.52
Butler	$53.30	$796,732	$5.21	$69,510	$260.41	$13.02	$46.95	$626,575	$2.35	$117.37
Cambria	$25.88	$444,006	$2.19	$37,600	$109.59	$5.48	$15.94	$273,478	$0.80	$39.85
Cameron	$0.91	$412,074	$0.10	$43,476	$4.81	$0.24	$0.71	$322,074	$0.04	$1.78
Carbon	$12.74	$476,646	$1.23	$46,054	$61.56	$3.08	$9.64	$360,586	$0.48	$24.10
Centre	$29.20	$490,626	$3.16	$53,060	$157.90	$7.90	$29.13	$489,484	$1.46	$72.83
Chester	$217.97	$1,154,221	$23.93	$126,701	$1,196.32	$59.82	$218.26	$1,155,794	$10.91	$545.66
Clarion	$4.95	$305,508	$0.47	$29,207	$23.65	$1.18	$3.90	$240,773	$0.19	$9.75
Clearfield	$12.36	$416,529	$1.28	$39,302	$64.14	$3.21	$11.10	$340,127	$0.56	$27.75
Clinton	$5.85	$411,907	$0.63	$40,104	$31.30	$1.57	$5.28	$338,388	$0.26	$13.21
Columbia	$11.28	$419,832	$0.97	$35,964	$48.32	$2.42	$6.98	$259,955	$0.35	$17.46
Crawford	$14.63	$419,005	$1.39	$39,956	$69.74	$3.49	$10.67	$305,611	$0.53	$26.67
Cumberland	$70.32	$714,319	$7.34	$74,568	$367.01	$18.35	$60.06	$610,135	$3.00	$150.15
Dauphin	$61.45	$541,935	$5.40	$47,604	$269.89	$13.49	$47.41	$418,092	$2.37	$118.52
Delaware	$174.09	$827,441	$18.10	$86,036	$905.09	$45.25	$160.46	$762,635	$8.02	$401.14
Elk	$5.78	$423,988	$0.58	$42,325	$28.87	$1.44	$4.46	$326,675	$0.22	$11.14
Erie	$55.14	$494,721	$4.79	$42,987	$239.57	$11.98	$38.86	$348,676	$1.94	$97.16
Fayette	$19.77	$389,912	$1.83	$32,207	$91.46	$4.57	$15.84	$278,869	$0.79	$39.60
Forest	$1.12	$453,683	$0.12	$47,439	$5.85	$0.29	$0.74	$298,086	$0.04	$1.84
Franklin	$31.35	$519,526	$3.35	$55,584	$167.71	$8.39	$28.10	$465,567	$1.40	$70.24
Fulton	$2.29	$376,332	$0.21	$34,496	$10.50	$0.53	$1.66	$272,857	$0.08	$4.15

Note: B = billions; M = millions; Phh = Per household. Source: Esri 2015 Current Net Worth estimates & Center for Rural Entrepreneurship TOW analysis estimates.

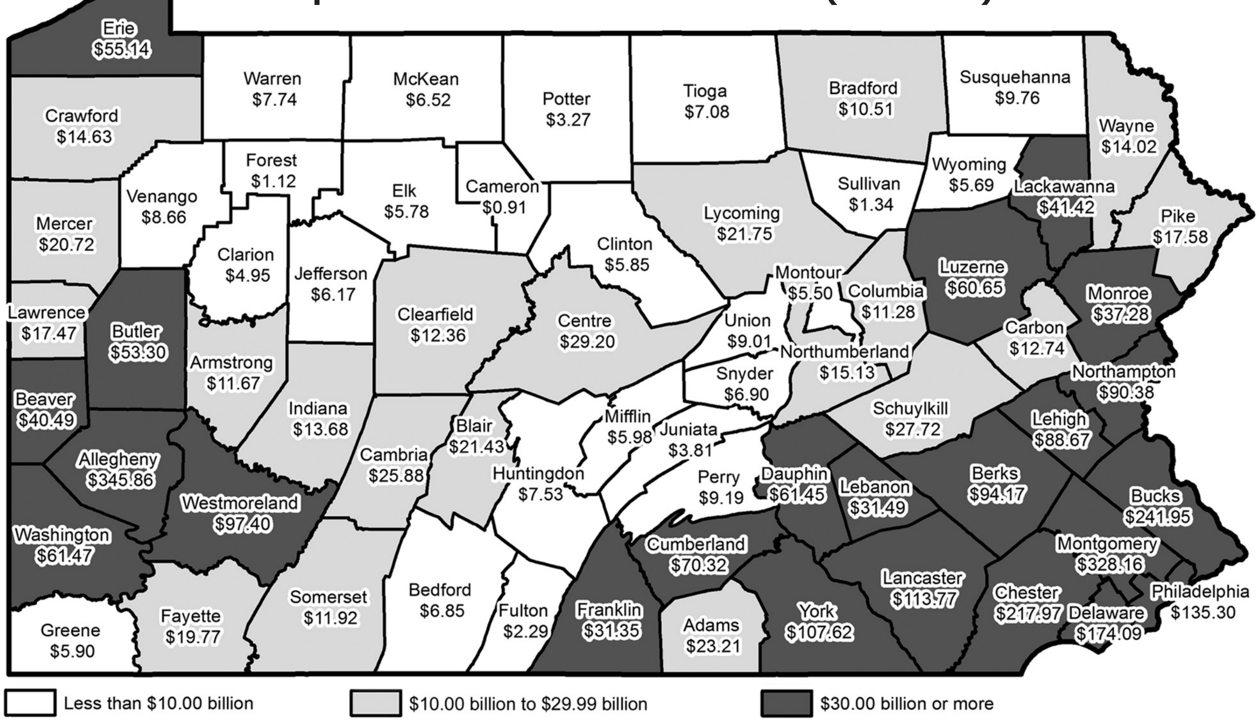
Table 1. Summary Findings (continued)										
	2015 Net Worth		10-Year (2016-2025) TOW				50-Year (2016-2065) TOW			
	Value (B)	Phh	Value (B)	Phh	5% Capture (M)	5% Payout (M)	Value (B)	Phh	5% Capture (B)	5% Payout (M)
Greene	$5.90	$463,467	$0.60	$41,187	$30.15	$1.51	$5.48	$374,377	$0.27	$13.70
Huntingdon	$7.53	$425,013	$0.75	$42,322	$37.48	$1.87	$6.10	$344,241	$0.30	$15.24
Indiana	$13.68	$388,664	$1.31	$37,126	$65.35	$3.27	$10.13	$287,645	$0.51	$25.31
Jefferson	$6.17	$327,436	$0.52	$27,479	$25.89	$1.29	$4.04	$214,347	$0.20	$10.10
Juniata	$3.81	$393,309	$0.38	$39,041	$18.90	$0.94	$3.33	$343,690	$0.17	$8.32
Lackawanna	$41.42	$474,938	$3.24	$37,113	$161.82	$8.09	$24.81	$284,526	$1.24	$62.03
Lancaster	$113.77	$580,663	$10.83	$53,964	$541.44	$27.07	$88.08	$438,958	$4.40	$220.21
Lawrence	$17.47	$472,562	$1.64	$44,410	$82.09	$4.10	$12.24	$330,994	$0.61	$30.59
Lebanon	$31.49	$585,382	$3.29	$61,089	$164.31	$8.22	$26.22	$487,496	$1.31	$65.56
Lehigh	$88.67	$649,655	$7.84	$57,415	$391.84	$19.59	$68.74	$503,613	$3.44	$171.85
Luzerne	$60.65	$458,882	$4.72	$35,716	$236.02	$11.80	$36.25	$274,263	$1.81	$90.62
Lycoming	$21.75	$528,079	$2.38	$50,287	$119.11	$5.96	$22.38	$472,452	$1.12	$55.95
McKean	$6.52	$380,397	$0.66	$38,296	$32.82	$1.64	$5.32	$310,461	$0.27	$13.30
Mercer	$20.72	$447,117	$1.69	$36,560	$84.72	$4.24	$12.29	$265,169	$0.61	$30.72
Mifflin	$5.98	$311,423	$0.52	$27,128	$26.05	$1.30	$3.83	$199,431	$0.19	$9.58
Monroe	$37.28	$604,000	$3.97	$64,403	$198.75	$9.94	$36.99	$599,316	$1.85	$92.47
Montgomery	$328.16	$1,043,025	$37.37	$118,790	$1,868.70	$93.43	$332.26	$1,056,063	$16.61	$830.65
Montour	$5.50	$715,024	$0.45	$58,932	$22.65	$1.13	$3.06	$397,409	$0.15	$7.64
Northampton	$90.38	$779,535	$9.15	$78,940	$457.62	$22.88	$74.86	$645,662	$3.74	$187.15
Northumberland	$15.13	$380,236	$1.30	$32,568	$64.80	$3.24	$9.98	$250,761	$0.50	$24.95
Perry	$9.19	$504,492	$0.93	$50,809	$46.26	$2.31	$7.43	$408,147	$0.37	$18.58
Philadelphia	$135.30	$220,582	$10.06	$16,398	$502.91	$25.15	$98.17	$160,053	$4.91	$245.43
Pike	$17.58	$793,991	$2.31	$104,355	$115.56	$5.78	$19.64	$886,870	$0.98	$49.10
Potter	$3.27	$438,807	$0.33	$43,871	$16.35	$0.82	$2.34	$314,541	$0.12	$5.86
Schuylkill	$27.72	$457,737	$2.61	$43,105	$130.52	$6.53	$20.42	$337,167	$1.02	$51.05
Snyder	$6.90	$456,896	$0.67	$44,694	$33.73	$1.69	$5.58	$370,007	$0.28	$13.96
Somerset	$11.92	$384,562	$1.07	$34,401	$53.30	$2.67	$7.91	$255,421	$0.40	$19.79
Sullivan	$1.34	$523,387	$0.18	$64,148	$9.05	$0.45	$1.47	$521,894	$0.07	$3.68
Susquehanna	$9.76	$615,199	$1.20	$65,745	$59.96	$3.00	$10.59	$580,764	$0.53	$26.48
Tioga	$7.08	$472,389	$0.87	$50,475	$43.49	$2.17	$7.49	$434,657	$0.37	$18.73
Union	$9.01	$602,718	$0.79	$52,823	$39.50	$1.97	$6.08	$406,697	$0.30	$15.20
Venango	$8.66	$385,813	$0.87	$38,883	$43.65	$2.18	$6.82	$303,655	$0.34	$17.04
Warren	$7.74	$434,045	$0.79	$44,293	$39.50	$1.97	$6.10	$342,205	$0.31	$15.26
Washington	$61.47	$809,376	$6.89	$78,853	$344.34	$17.22	$64.17	$734,739	$3.21	$160.42
Wayne	$14.02	$659,641	$1.64	$77,142	$81.99	$4.10	$12.06	$567,133	$0.60	$30.14
Westmoreland	$97.40	$706,363	$10.36	$67,073	$517.95	$25.90	$85.77	$555,316	$4.29	$214.41
Wyoming	$5.69	$557,474	$0.68	$59,279	$33.88	$1.69	$6.03	$527,454	$0.30	$15.07
York	$107.62	$627,991	$10.74	$62,659	$536.88	$26.84	$93.81	$547,434	$4.69	$234.53

Note: B = billions; M = millions; Phh = Per household. Source: Esri 2015 Current Net Worth estimates & Center for Rural Entrepreneurship TOW analysis estimates.

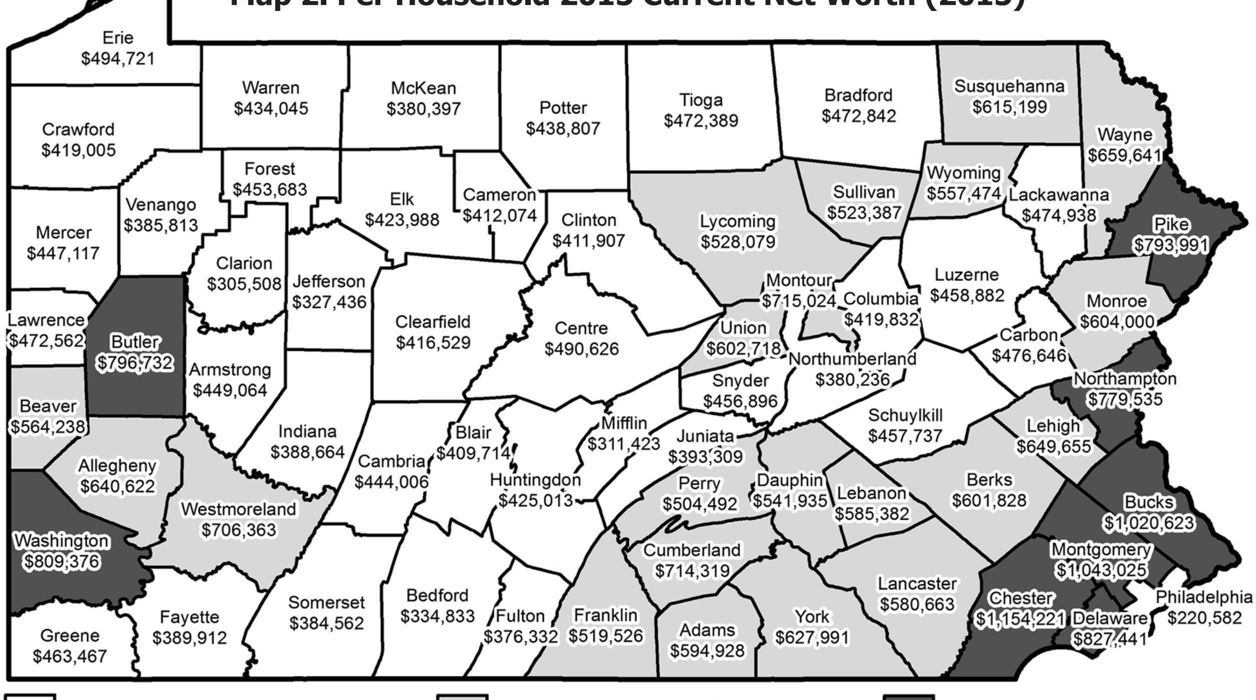
2015 Current Net Worth

Map 1 shows total 2015 current net worth (CNW) for Pennsylvania counties. Household wealth is greatest in population centers in the commonwealth. Lancaster County's values are elevated due to rising wealth associated with farmland values. Washington County's values are higher due to wealth associated with its role as a shale energy hub.

Map 1. 2015 Total Current Net Worth (in billions)



Map 2. Per Household 2015 Current Net Worth (2015)



Map 2 illustrates 2015 CNW per household. These values eliminate the influence of population size and yield some different insights into wealth in Pennsylvania. Suburban counties around Philadelphia and more rural counties associated with higher natural resource wealth have higher per household CNW values. Cumberland County also shows higher relative wealth.

TOW Scenarios

This research provides transfer of wealth projections over an extended period of time (up to 50 years in the future) to illustrate how the TOW opportunity changes as communities mature. It is not possible to forecast in a predictive way with a certain degree of reliability. Rather, the scenarios illustrate a likely future based on reasonable assumptions of both the past and the future. The scenario models are flexible and are capable of generating a range of scenarios based on different assumptions of the future. For more on the TOW analysis, turn to the Methodology section on Page 14.

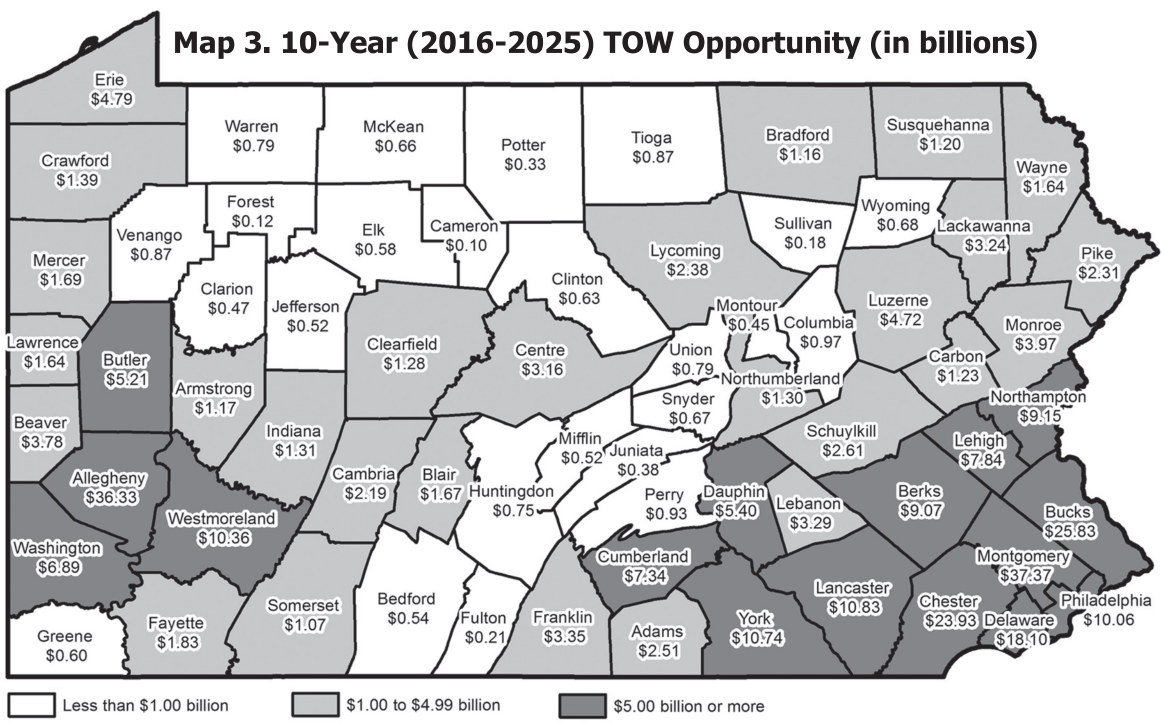
10-Year (2016-2025) TOW Opportunity

The Pennsylvania TOW analysis presents two future scenarios. The first is the 10-Year TOW scenario, covering the period of 2016 through 2025. The second is the 50-Year TOW scenario, covering five decades from 2016 through 2065. Much has changed over the last 50 years and it is challenging to fully capture how Pennsylvania's TOW opportunity will change over the next 50 years. However, it is helpful to look longer term and consider the full impact of two generations on the future TOW opportunity.

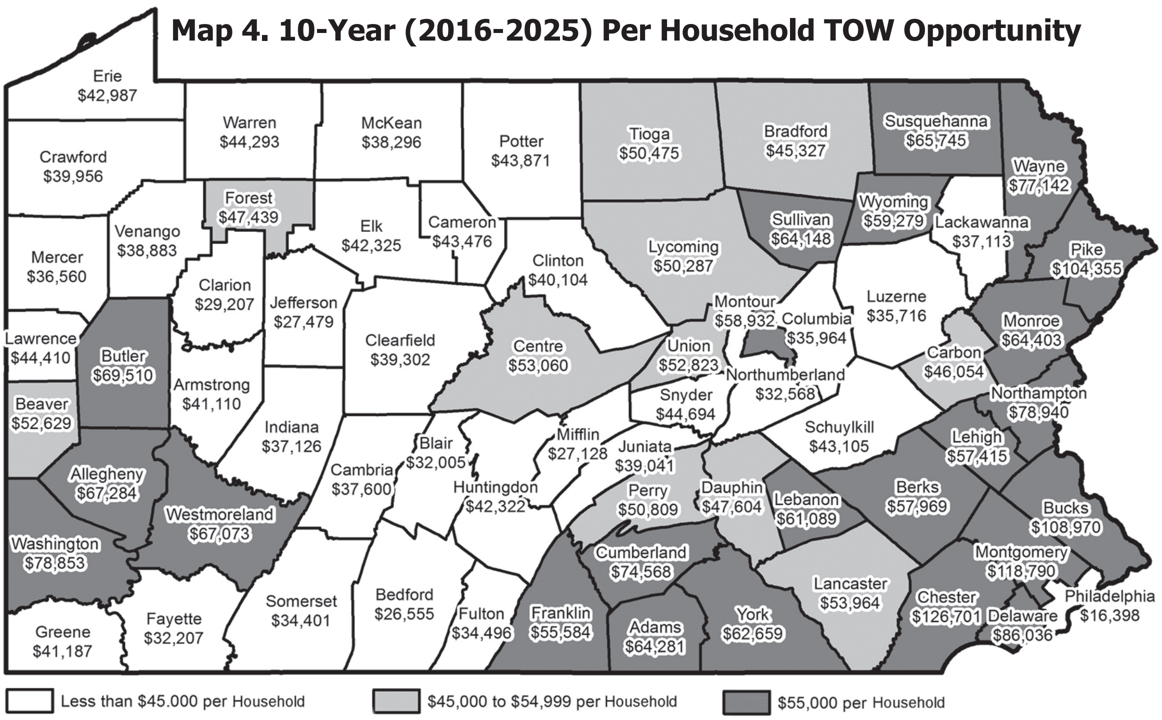
It is easier to consider changes that might occur over the next decade and, as a result, most communities use the 10-Year TOW scenario for planning and goal setting. Map 3 presents the 10-Year TOW scenario, showing total wealth that is likely to transfer over the next decade and potentially be available for charitable giving. To a large extent, population shapes the TOW opportunity across counties. As expected, the TOW opportunity, measured in absolute terms, is greatest in Philadelphia and its suburbs, in the eastern portion of south central Pennsylvania, with its agricultural land wealth, and in Pittsburgh and its suburbs.

While the magnitude of the TOW opportunity varies across the commonwealth, charitable giving potential is found in every county and community in Pennsylvania.

Map 3. 10-Year (2016-2025) TOW Opportunity (in billions)



Map 4 shows the 10-Year TOW scenario per household, eliminating the influence of population size. The shift toward higher TOW values in more suburban and rural places is similar to the shift that occurred in CNW on a per household basis (see Map 2). Many rural counties show higher TOW potential as compared to some urban counties when population impacts are controlled.



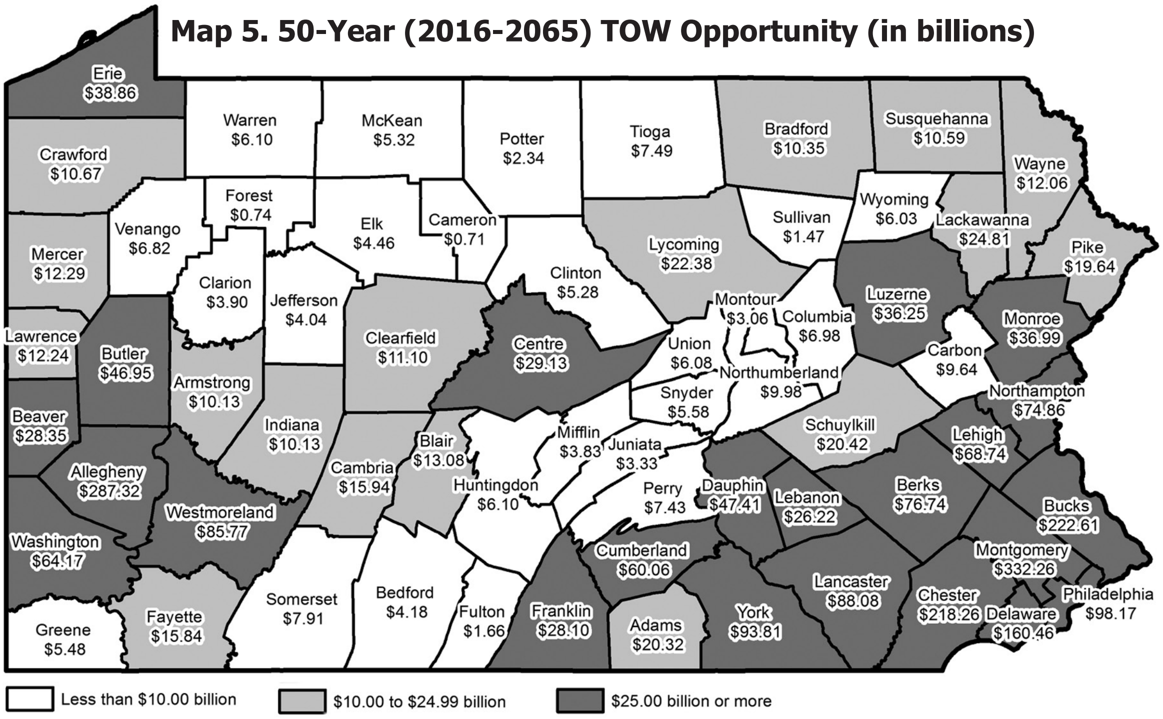
Map 4. 10-Year (2016-2025) Per Household TOW Opportunity

50-Year (2016-2065) TOW Opportunity

In producing the long-term TOW forecasts, the researchers considered more than one dozen unique variables likely to impact the accumulation and transfer of wealth. For example, in parts of the commonwealth, coal production has been and continues to be important. The coal industry is undergoing significant change as the result of a changing energy sector and environmental policy landscape. The researchers assumed that, over the long-term, coal will remain a part of the economic base in these counties and that there will not be significant upward or downward adjustment in wealth and TOW scenarios. As these trends crystallize in a more definitive direction, communities with heavy coal activity may modify their scenarios upward or downward based on the changing fortunes of coal and other factors.

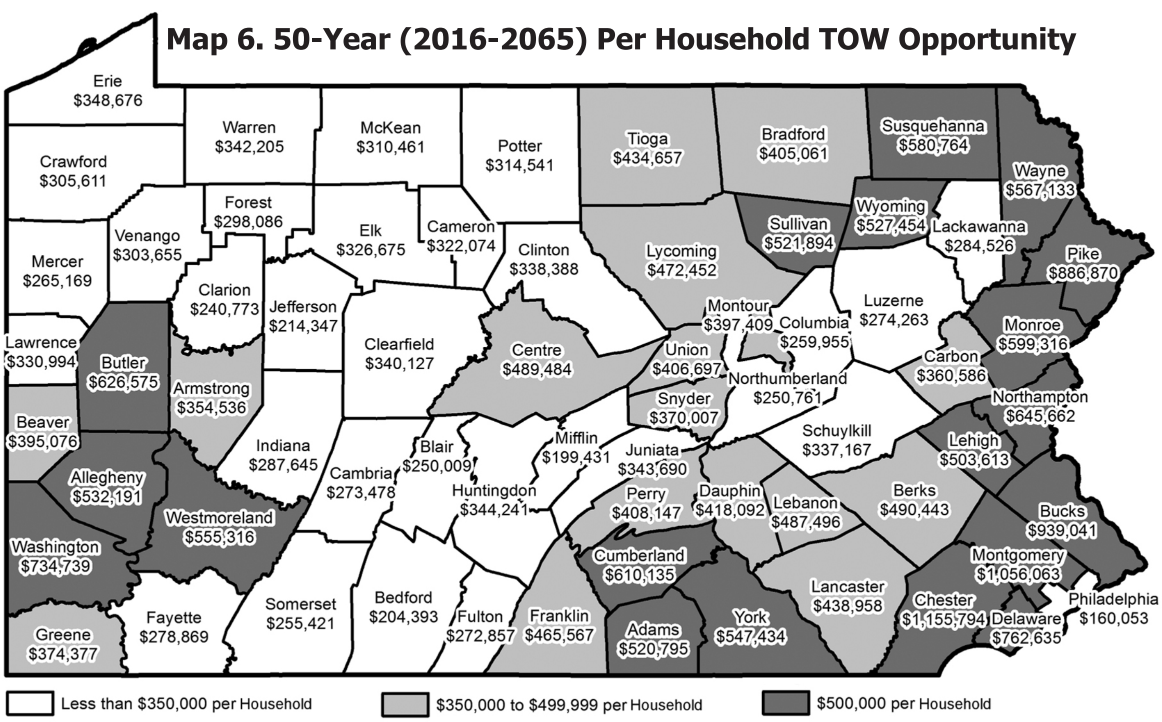
Map 5 shows the 50-Year TOW scenario for Pennsylvania. Again, the pattern of the TOW opportunity across the commonwealth is shaped primarily by population and also, to a lesser extent, by the wealth effects associated with Marcellus Shale energy development, rising agricultural land values, and emerging creative class clusters in urban centers.

Map 5. 50-Year (2016-2065) TOW Opportunity (in billions)



Map 6 shows the 50-Year TOW scenario per household. These values are generated using the number of households in 2015 as the divisor. The map shows a similar pattern of TOW opportunity over 50 years as is seen over the next decade (Map 4), adjusting for the influence of population.

Map 6. 50-Year (2016-2065) Per Household TOW Opportunity



Urban and Rural Findings

To provide greater insight on wealth in Pennsylvania, the researchers looked at the TOW opportunity in rural versus urban counties, using the Center for Rural Pennsylvania's definitions of rural and urban: a county is considered rural when the number of persons per square mile within the county is less than 284 and urban when it has 284 persons or more per square mile. Table 2 presents the findings. An estimated 77 percent of the total 2015 current net worth in the commonwealth is concentrated in urban counties, where about 79 percent of all households are located. Urban wealth, per household, is 1.29 times greater than rural wealth. The urban/rural dynamic remains relatively constant across the 10-Year and 50-Year TOW scenarios, increasing to 78 percent of the TOW opportunity concentrated in urban counties.

Impact of Marcellus Shale Energy Development

Marcellus Shale energy development is changing the economic and social landscape for some Pennsylvania counties. For this analysis, the researchers needed to understand how Marcellus Shale energy development will impact household wealth formation in the commonwealth, and its long-term implications for the TOW opportunity. Shale development influences wealth formation and TOW opportunity scenarios in the following ways:

- **Impacts Captured in the Base Scenarios**. Shale energy activity has been underway for most of the past decade. The base scenario, drawing on historical trends, reflects these impacts. Since shale energy development is still emerging, however, additional development and activity are likely, despite periods of production downturn. The researchers assume over the coming 50 years that the likely shale resources will be more fully developed.
- **Royalties**. The greatest wealth effect from shale energy development comes from royalty payments made to mineral rights owners from shale energy companies. Based on available research, some portion of royalty payments will be made to owners who do not live in the commonwealth. However, a majority of these owners are residents who live in shale energy producing areas or others located throughout the commonwealth.
- **Increased Economic Activity**. Sizable investment will be made by energy and associated companies in the development and production of shale energy. This activity will support an economic development-related wealth effect – generating income and wealth for the owners of these businesses, their employees, and their communities. These impacts will be concentrated in hub service areas such as Washington County in the southwest and Lycoming County in the northern tier. Other smaller service centers will experience similar wealth effects as new economic activities increase spending, income and resident wealth formation. Other counties experiencing more limited shale development and production will see smaller impacts from this increased economic activity.
- **Value-Added Development**. The scale of development likely to occur over the next 50 years and the increased demand for natural gas will likely create value-added economic development. Given the uncertainty about the scale of this value-added activity, the researchers are very conservative in the modifications

Table 2. Summary Findings by Urban and Rural Typology

	2015 Net Worth		10-Year (2016-2025) TOW				50-Year (2016-2065) TOW			
	Value (B)	Per Household	Value (B)	Per Household	5% Capture (B)	5% Payout (M)	Value (B)	Per Household	5% Capture (B)	5% Payout (M)
Pennsylvania	$3,114.64	$610,565	$309.92	$60,754	$15.50	$774.81	$2,637.51	$517,032	$131.88	$6,593.77
Urban	$2,410.74	$650,183	$242.15	$65,309	$12.11	$605.38	$2,069.05	$558,030	$103.45	$5,172.64
Rural	$703.91	$505,150	$67.77	$48,635	$3.39	$169.43	$568.45	$407,943	$28.42	$1,421.14

Source: Esri 2015 Current Net Worth estimates and Center for Rural Entrepreneurship TOW analysis estimates.

made to the base scenario to reflect additional wealth creation due to value-added development.

Based on the assessment of the potential long-term impact of shale energy development, the researchers believe that the 2015 current net worth is an underestimation as it reflects only historic levels of shale energy development.

Assuming full build-out of known shale energy development and including associated economic development and modest value-added development, the 50-Year TOW scenario could increase by 2.9 percent, or to $74.33 billion.

Other Adjustments

Although Pennsylvania reflects the United States in many ways, its unique qualities called for several adjustments to the TOW scenarios. In counties with significant farmland, the researchers adjusted household current net worth upward to reflect the rising value of agricultural land and declining indebtedness.

The researchers also considered the presence of the creative class and innovation activity in urban hubs. These upward adjustments primarily affect the base scenarios for Philadelphia, Pittsburgh, Centre County and Erie County and surrounding areas.

Finally, three mega-metropolitan areas – New York, Philadelphia and Baltimore/Washington – increasingly influence parts of Pennsylvania. The researchers adjusted the scenarios upward to reflect the future wealth effects associated with the growth of these mega-metro areas. These development impacts include a growing population and rising numbers of high wealth households establishing residency in the commonwealth.

Current U.S. TOW Findings

The following represent the updated TOW scenarios for the U.S.:

- 2015 U.S. Per Household Current Net Worth – $558,297
- 2015 Total Household Current Net Worth – $67.4 Trillion
- 10-Year TOW Opportunity – $7.1 Trillion
- 50-Year TOW Opportunity – $84.2 Trillion

Per Household Comparison Values

With updated U.S. TOW scenario numbers, the researchers can consider how households in Pennsylvania are doing in terms of wealth creation (net worth) relative to the U.S. and understand how the TOW opportunity in Pennsylvania compares to the country overall. Table 3 presents index values for Current Net Worth, 10-Year and 50-Year TOW opportunity values.

According to the analysis, Pennsylvania has a slightly higher average household current net worth when compared to the country. Over the next decade (2016 to 2025), per household TOW opportunity will be somewhat stronger in the commonwealth due, in large part, to an older population overall with a greater chance of estates transferring in the short-term. Conversely, over the 50-year period, Pennsylvania has moderately less TOW opportunity compared to the U.S. due to slower projected relative population and economic growth.

Household Wealth Formation by Decade

The Federal Reserve calculates household current net worth, beginning with 1945 to the present. Table 4 illustrates the annual rate of real growth in household current net worth over the past eight decades.

Table 3. Comparison of U.S. and Pennsylvania Per Household Values

Indicator	U.S.	Pennsylvania	Indexed
Current Net Worth	$558,297	$610,565	1.09
10-Year TOW	$59,586	$60,754	1.02
50-Year TOW	$708,661	$517,032	0.73

Indexing – Indexing is a way to create a comparison between U.S. and Pennsylvania per household values. A value of 1 or greater indicates that the Pennsylvania value is relatively higher than the U.S. value. A value of less than 1 indicates that the Pennsylvania value is relatively smaller when compared to the U.S. value.

The U.S. was transitioning out of World War II for the first partial decade of Federal Reserve data. The 1950s and 1960s were very good times in America, with strong wealth formation across many segments of American households. Rates slowed in the 1970s and 1980s, but were still relatively strong. The 1990s was one of the strongest periods of economic expansion since World War II and posted the most robust growth across all eight decades. Part of the strong increase in household wealth was associated with rising housing values and equity. The 2000s was the most challenging economic period since the Great Depression. Household wealth formation was negative for this decade, with the housing crisis in particular driving declining net worth. Since 2010 the trend lines have turned positive, but remain below historic growth rates. And, there is growing evidence of increased income and wealth inequality, with relatively few American households doing very well and the vast majority of households stagnating or losing ground.

Table 4. Annual Rate of Growth for U.S. Household CNW

Decade	Annual Growth Rate
1945-1950	3.47%
1950-1960	4.48%
1960-1970	4.09%
1970-1980	3.08%
1980-1990	3.47%
1990-2000	5.77%
2000-2010	-0.12%
2010-2015	+0.39%

Source: Federal Reserve source data compiled by the Center for Rural Entrepreneurship, 2015.

American Wealth – 2007, 2010 and 2013 Compared

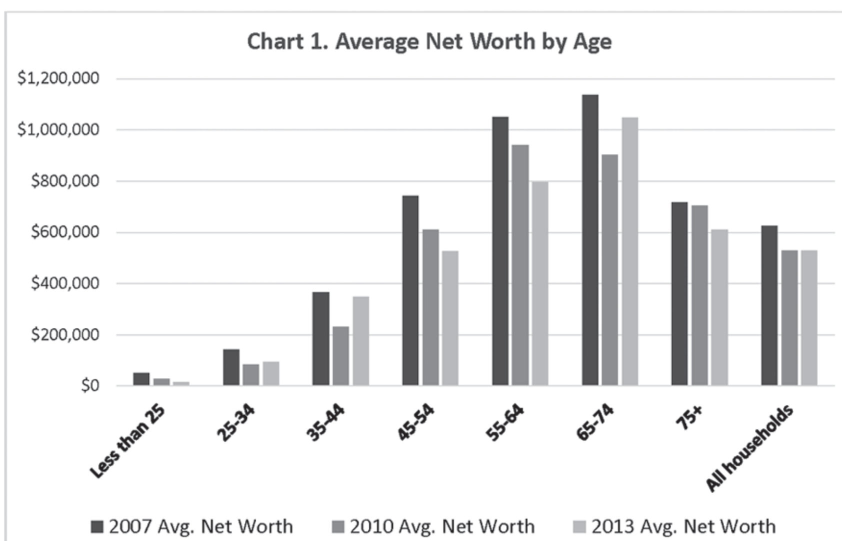
The TOW analysis projects likely future outcomes based on historical trends and key assumptions about the future. The historical relationships between key demographic indicators and wealth formation in the U.S. are at the foundation of this analysis. Much has changed in the U.S. and Pennsylvania over the last decade.

The following charts, using research from the Federal Reserve's Survey of Consumer Finance, illustrate pre-Great Recession (2007), post-Great Recession (2010) and Great Recession Recovery (2013) changes in wealth status (current net worth) for these key demographic indicators. Although these charts show U.S. data, they provide insights for Pennsylvania, given the commonwealth's comparability to the U.S.

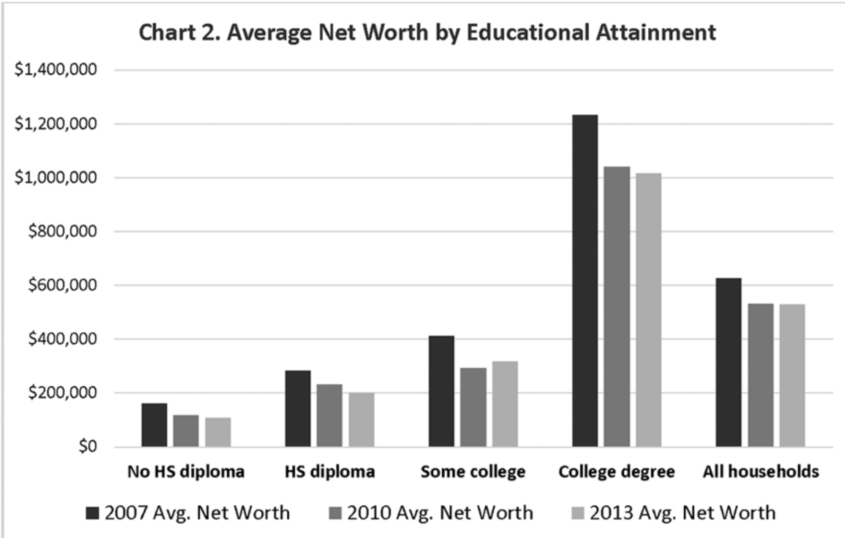
Overall, the Great Recession significantly eroded the wealth of American households. Chart 1 shows average household current net worth by age cohort, highlighting how different age cohorts are doing. All age cohorts show the impacts of the Great Recession, with less wealth in 2013 compared to 2007. However, some age cohorts (65-74) have seen significant recovery while others (45-54 and 55-64) continue to struggle or lose ground.

Wealth Drivers

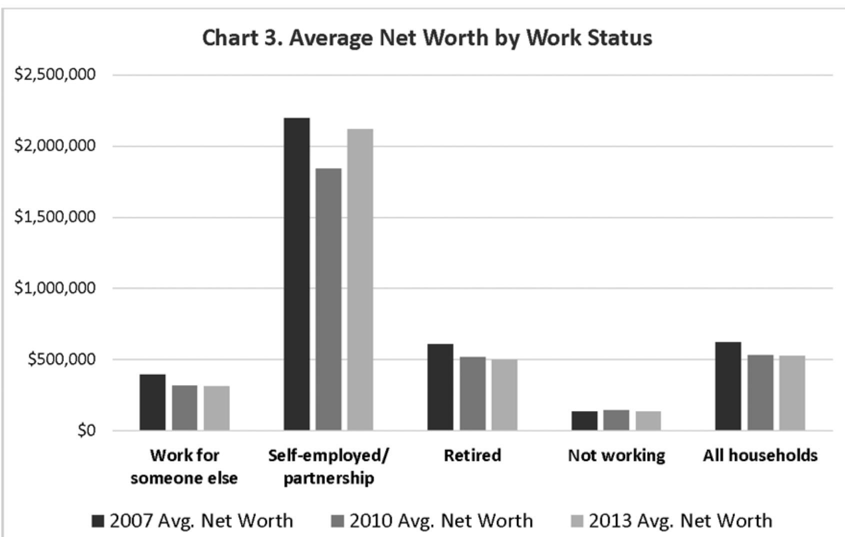
A number of key demographic indicators have a strong correlation with wealth formation. Education is a key driver of wealth formation among



Source: Census Bureau Current Net Worth estimates.



Source: Census Bureau Educational Attainment estimates.



Source: Census Bureau Work Status estimates.

America's households. Those households with no high school (HS), a high school degree or even some college have lower mean or average household current net worth compared to all households and particularly those with a college degree. However, there is research suggesting that the income and wealth effect from higher education is changing. A bachelor's degree is no longer a guarantee of a job or above average earnings in the post-Great Recession economy. Coupled with rising college debt, the prospects for a growing number of college graduates are now in question. However, those with the right college degrees, skills or experiences (certain creative class professions and entrepreneurial pursuits) are experiencing higher incomes and the potential for estate formation.

Chart 2 shows wealth holding by level of education. At all levels of educational attainment, wealth levels were lower in 2013 than they were in the pre-Great Recession period or 2007. Only those with some college saw a net increase in average wealth from 2010 to 2013. While the relationship between education and wealth is complex, the data continue to show a strong connection between educational attainment and household wealth formation.

There is an important relationship between how you earn a living – work status – and wealth holding in the U.S.

Business ownership continues to be a strong pathway to estate formation in the U.S. Households led by someone who is self-employed or involved in a business partnership have higher average wealth and experienced an improvement from 2010 to 2013 (Chart 3). While their average wealth has not rebounded to pre-Great Recession values, the trend line is positive. Compared to those who "work for someone else," are "retired," "not working" or "all households," the average wealth of individuals and families with business ownership stakes is three to five times higher. Compared to other groups, the wealth holdings of closely-held family businesses (self-employed/partnerships) are dramatically higher.

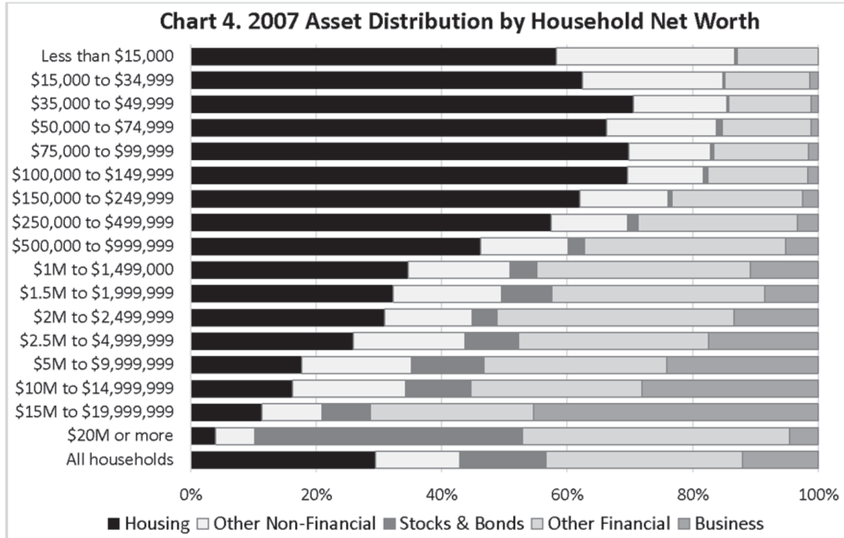
Charts 4, 5 and 6 summarize asset holding by wealth status for 2007, 2010 and 2013. In all three charts, the importance of business ownership in higher net worth households is clear, as business assets make up a more significant portion of their overall portfolio.

Occupational status is also a strong indicator of wealth formation and, ultimately, TOW opportunity. Those working in managerial and professional occupations are more likely to have higher wealth compared to all other categories. Economies that generate more of these higher income and wealth producing occupational opportunities are going to create more wealth and more charitable giving potential.

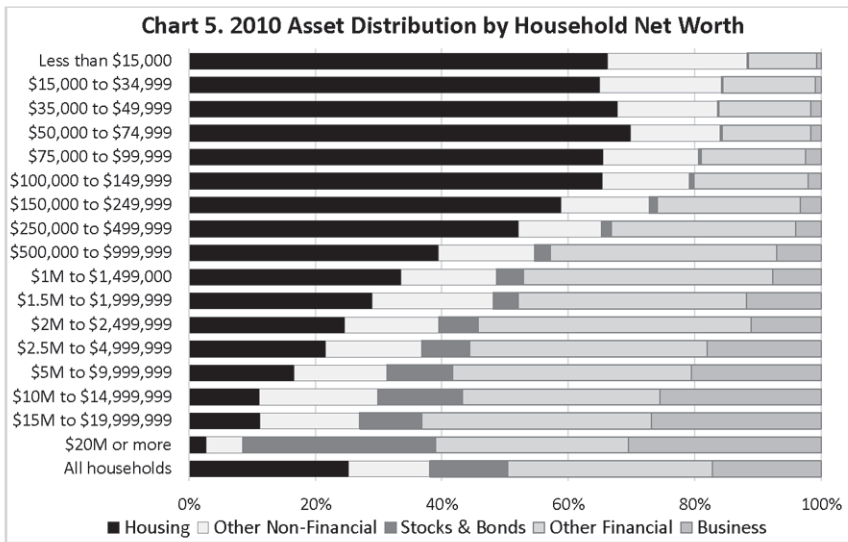
Connecting business ownership with occupational status, households led by someone who is self-employed or in a partnership have nearly twice the wealth of households led by someone in a managerial and professional occupation. When those with higher-end occupational skills also are in business for themselves, the opportunity for estate formation increases.

Chart 7 shows that no occupation has recovered fully from the Great Recession, with most wealth values below 2010 values. Only "technical, sales and service" occupations are showing signs of recovery from the 2010 valley.

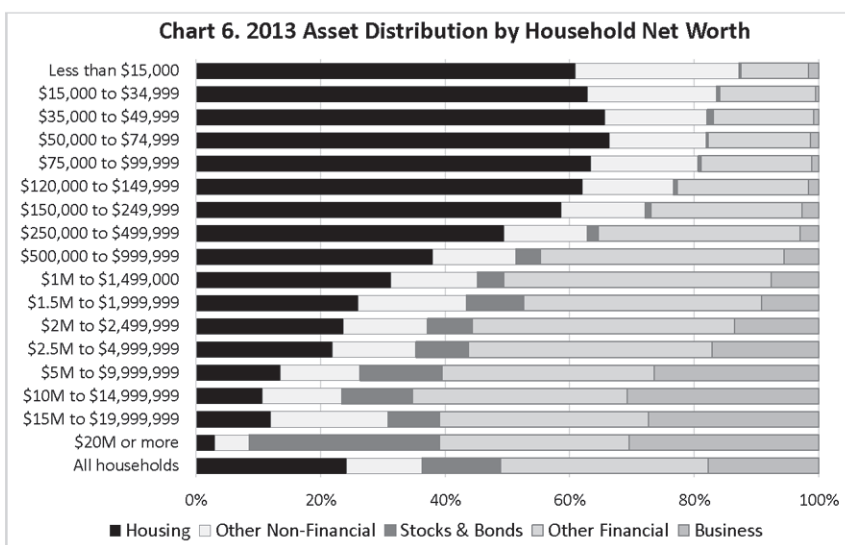
Income has a strong influence on wealth formation. Households that work hard, earn a good income, save and invest are able to grow a larger estate. Chart 8 shows average household net worth by income level. Lower income house-



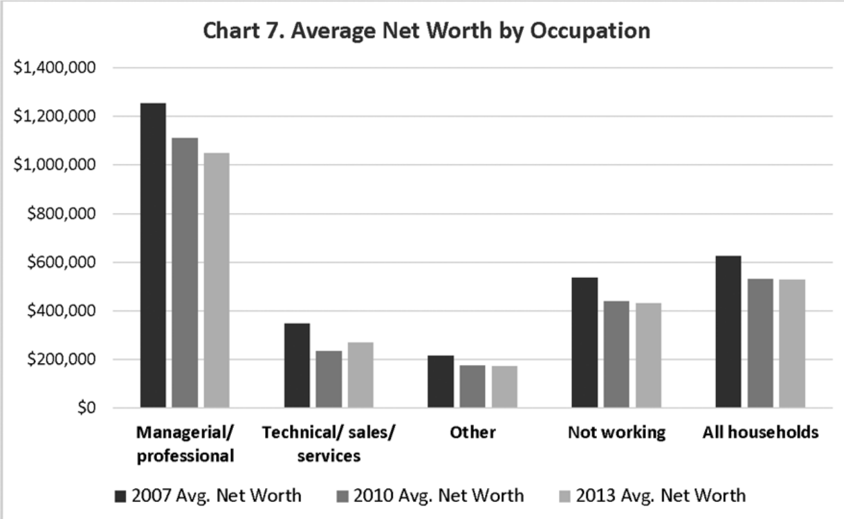
Source: Survey of Consumer Finance.



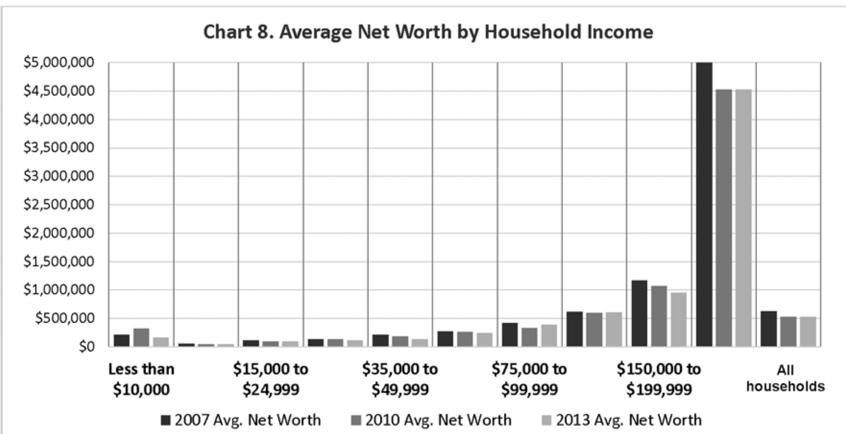
Source: Survey of Consumer Finance.



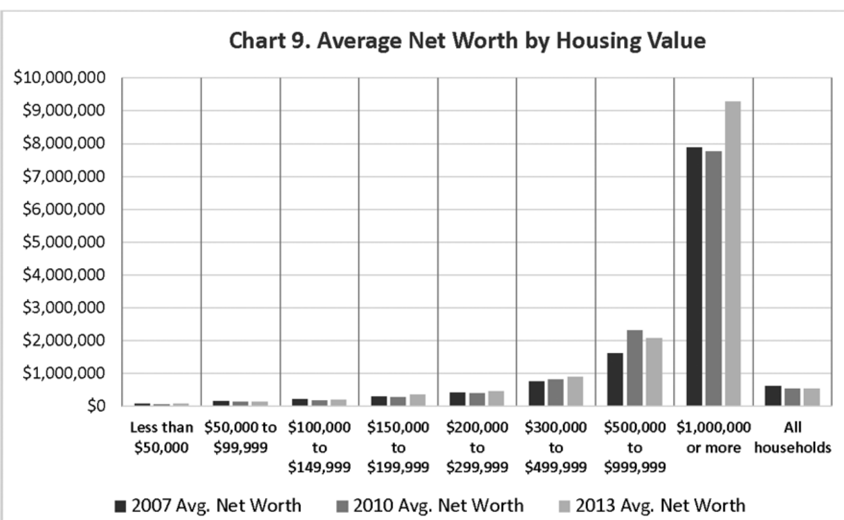
Source: Survey of Consumer Finance.



Source: Census Bureau Average Net Worth estimates.



Source: Census Bureau Average Net Worth estimates.

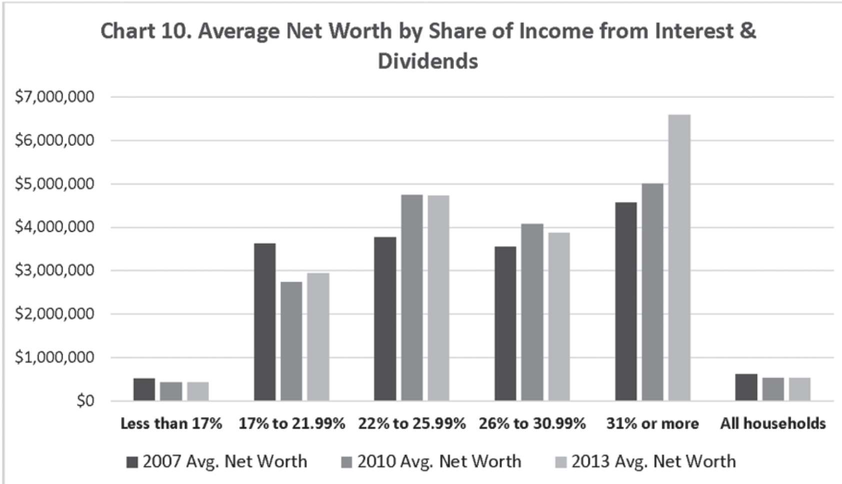


Source: Census Bureau Average Net Worth estimates.

holds have less wealth overall and have not seen a rebound in their wealth since the Great Recession. Higher income households have higher overall wealth holdings and their wealth has returned to at least 2010 levels.

Home ownership is also a key wealth driver and, as shown in Charts 4-6, home equity is the most important asset in the wealth portfolio of lower income households. Chart 9 shows the average current net worth of households based on the value of their homes. The data show a rebound in wealth holding even for those with lower housing values ($150,000 to $500,000) but a more significant increase for those households with the most expensive housing values (Chart 9).

As Charts 4-6 show, stocks and bonds make up a more significant part of the wealth portfolio of higher net worth individuals. Income coming from interest and dividends is one way to measure these portfolio impacts. Chart 10 on Page 14 shows that households with more than 30 percent of their income derived from interest and dividends have significantly greater current net worth than those with less than 17 percent of their income coming from interest and dividends. And, the rebound in wealth holding for these higher net worth households is significant; their average net worth is now between $6 and $7 million.



Source: Census Bureau Average Net Worth estimates.

METHODOLOGY

Important Considerations

The following are important considerations to keep in mind about the TOW model.

Scenarios

The TOW model produces scenarios based on projections of likely futures, not predictions or forecasts of actual future outcomes. Scenarios are driven by key assumptions about the future, based on historical trends. In all cases, the researchers worked to create conservative scenarios that represent realistic estimates of TOW opportunities. The scenario numbers generated are not predictive – indicating what will result 10 and 20 years from now – but rather demonstrate potential or a "likely future" given past and current trends. They are not designed to dictate policy but rather to provoke strategic discussions driven by a simple question – what if the community were able to capture just 5 percent of the wealth that will transfer between generations over the next 10, 20, or 50 years to support investments in community betterment?

Base Year for Analysis

The first consideration in any TOW study is the establishment of a base year for analysis. For this study, 2015 was chosen as the base year. The researchers considered 50 years of historical indicators starting with the post-World War II period and extending through 2015, the most recent year for which an adequate number of adjusted indicators necessary to establish current net worth are available, and projected estimates 50 years (to 2065) into the future, annually.

Real Dollars

The analysis was conducted in "inflation-adjusted dollars." In other words, these are real dollars – a dollar in 2065 is worth the same as a dollar in 2015.

Steps in Creating TOW Scenarios

1. Estimate Current Net Worth

The TOW analysis uses a data series produced by the U.S. Federal Reserve Board, the Survey of Consumer Finance Report, to match demographic characteristics for the study region with key national indicators. This report provides detailed U.S. asset and liability holdings by key demographic characteristics (e.g., age of household, income of household, race, employment type, region, and housing status). These data relationships are used to estimate net worth at the state and county levels.

Customization. Final current net worth estimates for the base year are customized for each study area based on the relationships between a number of key indicators at the state and county levels as compared to the national level. Primary indicators include: (a) dividend, interest and rent income, (b) income characteristics, (c) age characteristics, (d) concentrations of creative class employment, (e) concentrations of business ownership, and (f) market valuation of real property by class.

Two of these indicators warrant further discussion – creative class workers and business ownership. There is growing research and analysis that supports the view that significant innovation and wealth result from certain types of economic activities often referred to as the "knowledge economy" or the "creative class." Richard Florida and others argue that knowledge or creative class sectors and businesses generate significantly higher earnings and wealth creation than other economic activities. In this TOW analysis, the researchers consider the current concentration of creative class workers and the likely growth of this economic segment over the study period, employing methodology developed by the Economic Research Service of the U.S. Department of Agriculture.

Entrepreneurship or business ownership is part of America's tradition and another current net worth indicator. From our earliest history, a promising pathway to economic success and security was through entrepreneurship or business ownership. For many immigrants unable to obtain good jobs, business ownership is the primary route to economic success and wealth formation. Business ownership is full of challenges and risks as most new businesses fail. Despite this reality, on average, self-employed heads of households have 5.8 times more current net worth as compared to those who work for someone else.

A number of additional indicators are used to customize current net worth estimates. Many of these factors are also key considerations in building assumptions for TOW projections:

- Adjacency to high amenity areas, second home development and retirees;
- Pockets of the ultra-rich (locals or newcomers whose wealth puts them in the top 1 percent in the U.S.);
- Effects of public lands – federal, state and local;
- Pockets of high corporate stock ownership;
- Specific new economic development projects;
- Effects of the gaming industry, if any;
- Behavioral patterns of saving and investing;
- Effects of new immigrants and repatriation of earnings;
- Areas of future population boom, bust, or plateau;
- Public housing impacts;
- Institutionalized populations (e.g., prisons, care homes, military).

2. Build Demographic/Population Models

For each study region, the researchers build a population model for the scenario period and an economic forecasting model. They employ existing and available population forecasts and, if not available, build population forecasts through the scenario period. The researchers rely on a set of historic relationships between drivers of wealth and household current net worth. There are strong and historic relationships between these drivers, defined as changes in population, personal income, and gross domestic product, and change in household current net worth. For example, based on historic data, every 1 percent increase in population is associated with a 2.6 percent increase in personal income while a 1 percent increase in personal income is associated with a 1 percent increase in current net worth.

These relationships were employed along with demographic and economic forecasts to project household CNW over time. Again, the researchers generate relatively conservative projections benchmarked to the low-range CNW and low TOW projection for the U.S.

3. Discount Assets

Not all assets are equal with respect to TOW opportunity. Many assets will not be available for giveback to heirs, charities or communities. The researchers employ a discounting methodology to reduce the value of the CNW projections and generate a TOW estimate that more closely represents the likely TOW opportunity for each area. This discounting can reduce gross CNW by 40 percent to 60 percent depending upon the demographics of households in a particular place. Again, the discounting allows the researchers to estimate the TOW that is truly available for potential giveback.

Below are examples of CNW discounting employed in the methodology and analysis:

- Assets that depreciate quickly such as automobiles or household goods;
- Assets where future value is hard to estimate such as collections, art and jewelry;
- Future income associated with defined benefits with no cash value;
- Closely-held assets including farms, ranches and family businesses;
- Assets of lower-income households that are likely to be consumed during retirement, leaving limited estates available for giveback.

4. Estimate Timing of the TOW Release

The next step is to estimate the timing of TOW, or when wealth may be transfered from one generation to the next. Projected deaths are the primary indicator of TOW release since most estate transfers occur upon death. Demographic projections estimate the number of deaths throughout the analysis time period and these percentages are used to estimate TOW release.

5. Review and Verification

To ensure that the research has captured all material considerations, the researchers undertake a careful review and verification process so that the TOW scenarios reflect each state or region's unique circumstances and realities. The researchers work with a Technical Advisory Committee in each study region throughout the TOW analysis process. The Technical Advisory Committee helps identify unique factors that would impact estimates of either current net worth or TOW.

FED's Survey of Consumer Finance

Total Net Worth

Since the 1980s, the U.S. Federal Reserve Board has commissioned an extensive research effort, Survey of Consumer Finances (SCF), to gain insights into household income and net worth. The TOW analysis uses data series produced by this research to establish relationships between several household characteristics and household net worth. The SCF is produced every 3 years and the current report covers 2013.

The SCF appendix provides detailed information on U.S. households' income, assets and liabilities by key characteristics: demographic, economic, social and housing. The following describes these key variables used in estimating total net worth and shows the relationship between these key variables and net worth. The research uses the U.S. as a benchmark in estimating net worth value at sub-national level in 2013.

Wealth Drivers

Age. Wealth accumulation follows a hump-shaped path, where wealth increases until retirement and then declines after retirement. In the early stages of a life-cycle, households have little wealth. They are often emerging from school and entering the labor force. As they improve their skills, gain expertise or find a career, incomes increase allowing them to save more and accumulate wealth. Once they reach their peak productivity levels (55-64 years), their net worth reaches its peak. Finally, after retirement they start spending down from their investments and their net worth starts to decline.

Educational attainment. Another useful indicator to estimate net worth is educational attainment. Average net worth of the households with a college degree is twice as much as the national average. A recent publication, How Education Pays Off for Older Americans, investigates if the earnings premium for higher education rises or falls beyond retirement. The findings suggest that additional schooling allows people to stay in the workforce longer, thus continuing to earn an income over a longer period.

Income. There is a strong positive correlation between household income and average net worth. Average net worth increases rapidly once household income reaches $100,000.

Share of dividends, interest and rent (DIR) income in total. Many researchers use the share of income from dividends, interest and rent as a proxy for wealth holding. DIR income is passive income representing the return on previous investments made by the household. As expected, as the share of income from dividends and interest increases, so does average net worth. While this trend makes intuitive sense, the significant increase in average net worth for those with more than a 20 percent share of dividends and interest income is striking.

Work status (self-employment). The importance of small businesses and entrepreneurs in our economy has been well documented. Small businesses tend to add more jobs compared to larger businesses; those places with more local businesses enjoy higher income levels. It would appear that entrepreneurial minds create more economic opportunities and contribute to the wealth of a place as they put local resources to higher value uses. On average, those that are self-employed or in a partnership tend to have higher average wealth holdings than those working for someone else. In fact, the difference between these groups is over $1.4 million.

Occupation type. Occupation describes the kind of work a person does to earn a living. According to the 2010 SCF report, those households headed by a person with a managerial occupation tend to have higher average net worth than other households. On average, this group has twice the net worth of the average household.

Housing value. Another indicator that is positively correlated with net worth is housing value. On average, as the value of the housing unit increases, so does the average net worth of the household. Average net worth surpasses the national average when housing value reaches $300,000.

Estimating Transfer of Wealth Values

A final step in creating TOW scenarios is to calculate death rates for the area. This research relies on data from the Centers for Disease Control and Prevention and the National Center for Health Statistics. Cumulative data, covering 1999 through 2010, are used to provide a picture of death rates in the area.

Timing of the Transfer of Wealth Opportunity

Timing of the TOW opportunity depends on the availability of estates. Using death rate data from the Centers for Disease Control and Prevention and the National Center for Health Statistics, the researchers estimate the number of estates that are likely to occur in each county.

Description of Assets

Business: Total value of business(es) in which the household has either an active or non-active interest. Businesses include both actively and non-actively managed business(es).

- Value of active business(es) calculated as net equity if business(es) were sold today, plus loans from the household to the business(es), minus loans from the business(es) to the household not previously reported, plus value of personal assets used as collateral for business(es) loans that were reported earlier.
- Value of nonactive business(es) is calculated as the market value of the business(es).

Financial: Total value of financial assets held by household. These assets are composed of the following (excludes stocks and bonds):

- LIQ: Total value of all types of transaction accounts.
- CDS: Total value of certificates of deposit held by household.
- NMMF: Total value of directly held pooled investment funds held by household. Excludes money market mutual funds, but includes stock mutual funds, tax free bond mutual funds, government bond mutual funds, and combination and other mutual funds, such as hedge funds.
- SAVBND: Total value of savings bonds held by household.
- CASHLI: Total cash value of whole life insurance held by household.
- OTHMA: Total value of other managed assets held by household. Includes: trusts, annuities and managed investment accounts in which the household has equity interest.
- RETQLIQ: Total value of quasi-liquid held by household. Includes: IRAs, Keoghs, thrift-type accounts, and future and current account-type pensions.
- OTHFIN: Total value of other financial assets. Includes: loans from the household to someone else, future proceeds from lawsuits, royalties, futures, non-public stock, deferred compensation, oil, gas, and mineral investments, cash n.e.c.

Non-Financial: Total value of non-financial assets held by household. These assets are composed of the following (excludes residences and business):

- VEHIC: Total value of all vehicles held by household. Includes all types of vehicles (cars, trucks, SUVs, motorcycles, boats, airplanes, etc.).
- NRESRE: Total value of net equity in nonresidential real estate held by household. Includes real estate other than the principal residence, properties coded as 1-4 family residences, time shares, and vacation homes net of mortgages and other loans taken out for investment real estate.
- OTHNFIN: Total value of other nonfinancial assets held by household. Includes gold, silver (incl. silverware), other metals or metals NA type, jewelry, gem stones (incl. antique), cars (antique or classic), antiques, furniture, art objects, paintings, sculpture, textile art, ceramic art, photographs, (rare) books, coin collections, stamp collections, guns, misc. real estate (exc. cemetery), cemetery plots, china, figurines, crystal/glassware, musical instruments, livestock, horses, crops, oriental rugs, furs, other collections, incl. baseball cards, records, wine, oil/gas/mineral leases or investments, computer, equipment/tools, association or exchange membership, and other miscellaneous assets.

Residences: Total value of primary residence and other residential real estate of household. Value of primary residence, excludes the part of a farm or ranch used in a farming or ranching business. Value of other residential real estate includes land contracts/notes owed to the household and properties other than the principal residence, including 1-4 family residences, time shares, and vacation homes.

Stocks & Bonds: Total value of directly held stocks and bonds held by household. Bonds includes: nontaxable bonds, mortgage bonds, government bonds, and 'other' bonds, such as corporate or foreign bonds.

Acknowledgements

The Center for Rural Entrepreneurship

The Transfer of Wealth analysis was completed by the Center for Rural Entrepreneurship and the research team of Don Macke, Dick Gardner, Deb Markley, Cathy Kottwitz and Dana Williams. The Center's mission is to help community leaders build a prosperous future by supporting and empowering business, social and civic entrepreneurs. Since its first TOW study in early 2000s for the Nebraska Community Foundation, the Center has completed more than 50 studies, covering nearly 60 percent of the communities in the continental U.S., and is the leader in Transfer of Wealth Opportunity analysis in America. For more information on the Center, visit www.energizingentrepreneurs.org.

Technical Advisory Committee

The Center for Rural Pennsylvania and Center for Rural Entrepreneurship thank the following individuals for participating in the Transfer of Wealth Technical Advisory Committee: Steve Brame, Pennsylvania Rural Electric Association; Dr. Kathryn Brasier, Pennsylvania State University; David Brinton, Governor's Center for Local Government Services; Dr. Constantinos Christofides, East Stroudsburg University; Sue Copella, Pennsylvania State Data Center; Mark S. Critz, Pennsylvania Rural Development Council; Neil Fowler, Pennsylvania Department of Community and Economic Development; Dr. Stephan J. Goetz, Northeast Regional Center for Rural Development; Mike Kane, Community Foundation for the Alleghenies; James Stark, Fayette County Community Action; Jerry Walls, Walls and Associates; and Walt Whitmer, Pennsylvania State University.

County Scenarios

Part of the TOW Opportunity Analysis included a 2015 wealth profile for every county in Pennsylvania. These county profiles are available on the Center for Rural Pennsylvania's website at www.rural.palegislature.us.

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