

WEALTH TRANSFER IN PENNSYLVANIA

Prepared for:
The Center for Rural Pennsylvania



September 2015

What is TOW?

America is in the midst of the greatest intergenerational transfer of wealth (TOW) in our history. Between 2010 and 2060, we estimate that \$84 trillion (in 2015 dollars) will transfer from one generation to another in the U.S. In the coming decade, 2016 through 2025, the TOW opportunity is over \$7 trillion.

TOW is an estimate of American household wealth from which charitable giving could be realized. Our analysis yields a conservative estimate of TOW, discounting wealth that is unlikely to be available for charitable giving.

Why TOW Matters?

America's communities are struggling to find the financial resources necessary to support community and economic development. Traditional sources such as government funding are stagnant or declining. In this environment, possibly the single largest underdeveloped resource is community-based philanthropy fueled by capturing some portion of the TOW opportunity. Considering only the 10-Year U.S. TOW estimates, approximately \$355 billion in new community endowments could be realized across America if just 5% of this opportunity were gifted back to communities. Assuming a conservative and sustainable 5% annual payout, these endowments would generate nearly \$18 billion to support new annual grant making. Over a generation (25 years), this would mean nearly one-half trillion dollars of new resources for America's communities. Community endowments, properly managed, are a renewable and sustainable financial resource for communities to invest in their development.

Community Development Philanthropy

Community Development Philanthropy is the intentional marriage of community-based philanthropy, fueled by the TOW opportunity, and community economic development. Growing more livable, prosperous and sustainable communities requires patient and robust new funding sources. There is a growing **Community Development Philanthropy** movement across the United States. To learn more, visit our [Advancing Community Development Philanthropy](#) resource site.



Contents

Executive Summary

Detailed Findings

Insights Based on Wealth in America

Resources

Estate Transition

Change Diagrams

Methodology & Process

For More Information

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Executive Summary

The Center for Rural Entrepreneurship's **2015 Transfer of Wealth Opportunity Analysis** for the Commonwealth of Pennsylvania has produced the following findings:

2015 Household Current Net Worth – \$3.1 Trillion
10-Year (2016 through 2025) TOW Opportunity – \$310 Billion
50-Year (2016 through 2065) TOW Opportunity – \$2.6 Trillion

Our findings are based on scenarios specifically developed for the Center for Rural Pennsylvania and based on reasonable assumptions about the future. To illustrate the philanthropic potential associated with the Commonwealth's 10-year and 50-year TOW opportunities, consider the following scenarios:

Over the Next Decade. Acting aggressively on the 10-year TOW opportunity and achieving a five percent giving goal, the Commonwealth and its communities would realize the following:

10-Year (2016 through 2025) TOW Opportunity – \$310 Billion
5% Giving Goal Realized – \$15.5 Billion in New Community Endowments
5% Sustained Annual Payout – \$775 Million in Perpetual Grant Making
This would be like creating a Ford Foundation focused solely on Pennsylvania.

Over Two Generations. Acting aggressively on the 50-year TOW opportunity and achieving a five percent giving goal, the Commonwealth and its communities would realize the following:

50-Year (2016 through 2065) TOW Opportunity – \$2.6 Trillion
5% Giving Goal Realized – \$130 Billion in New Community Endowments
5% Sustained Annual Payout – \$6.5 Billion in Perpetual Grant Making
This would be like creating four Gates Foundations focused solely on Pennsylvania.

Table 1 on the next page provides summary findings for Pennsylvania and its counties.

Notes on Using this Report

More detailed findings and illustrations are shared later in this report. The following abbreviations are used in the tables throughout this report: B = Billions of Dollars; M = Millions of Dollars; and Phh = Per Household Values. The findings reflect our most likely scenario of the future based on conservative assumptions. All values are represented in 2015 real or inflation adjusted dollars, where a dollar in 2060 has the same purchasing power as a dollar in 2015. Marcellus refers to those counties experiencing nonconventional shale energy development. We are using the Center for Rural Pennsylvania's rural/urban typology.

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	\$12.83	\$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	\$12.08	\$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	\$59.70	\$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	\$13.60	\$416,529	\$1.28	\$39,302	\$64.14	\$3.21	\$11.10	\$340,127	\$0.56	\$27.75
Clinton	\$6.43	\$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	\$22.15	\$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

	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	\$6.78	\$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	\$116.52	\$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	\$25.02	\$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	\$1.48	\$523,387	\$0.18	\$64,148	\$9.05	\$0.45	\$1.47	\$521,894	\$0.07	\$3.68
Susquehanna	\$11.22	\$615,199	\$1.20	\$65,745	\$59.96	\$3.00	\$10.59	\$580,764	\$0.53	\$26.48
Tioga	\$8.14	\$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	\$70.69	\$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	\$109.09	\$706,363	\$10.36	\$67,073	\$517.95	\$25.90	\$85.77	\$555,316	\$4.29	\$214.41
Wyoming	\$6.37	\$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

Detailed Findings

In addition to the table of summary findings shared in the Executive Summary, the detailed TOW findings are presented through a series of maps showing the results of our TOW opportunity scenarios, including:

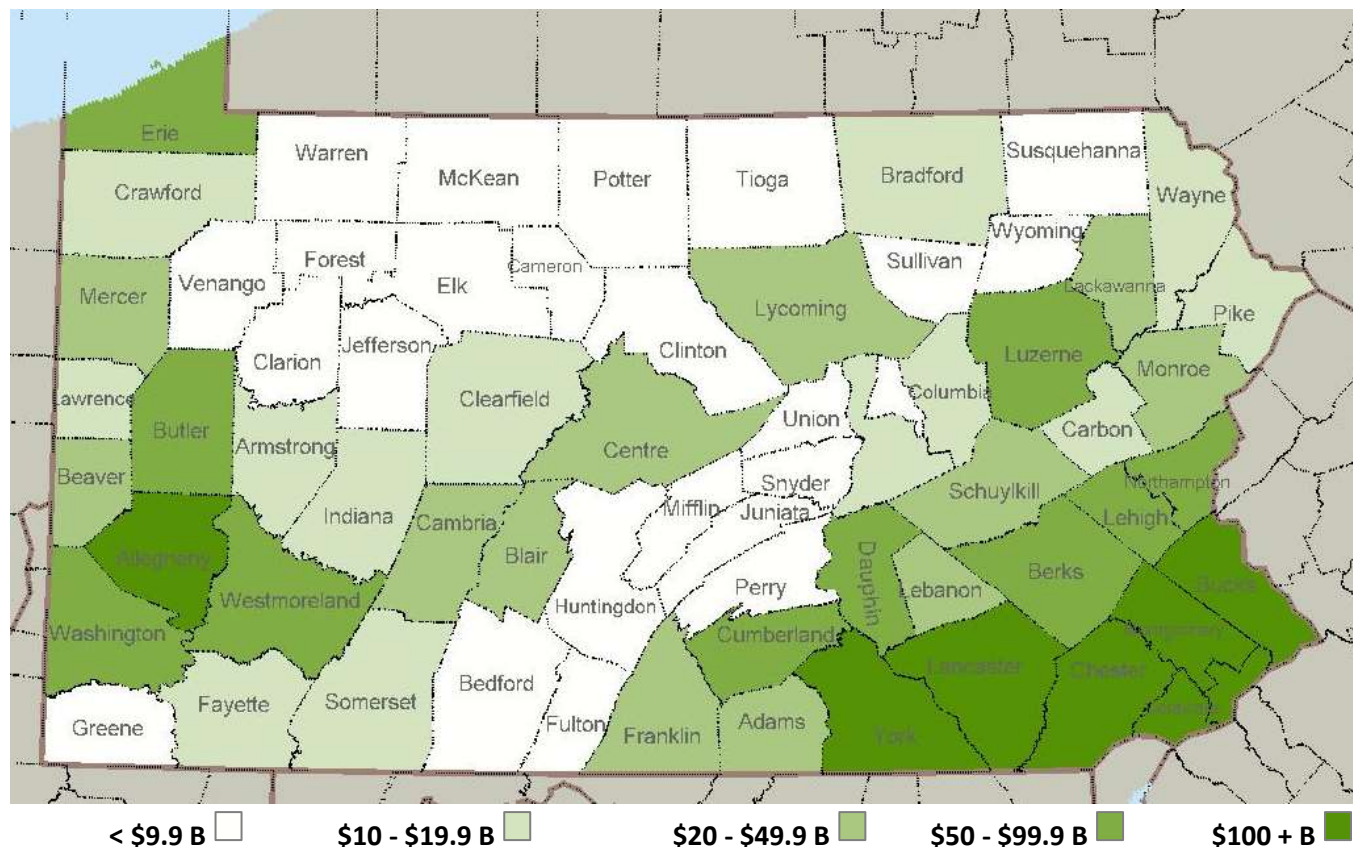
- Map of the Commonwealth’s 2015 Current Net Worth, total and per household values by county
- Map of the Commonwealth’s 10-Year TOW Opportunity, total and per household values by county
- Map of the Commonwealth’s 50-Year TOW Opportunity, total and per household values by county

Two special topics were considered as part of this analysis – the TOW opportunity in rural and urban counties and the impact of shale energy development. Both of these topics are discussed in this section.

2015 Current Net Worth

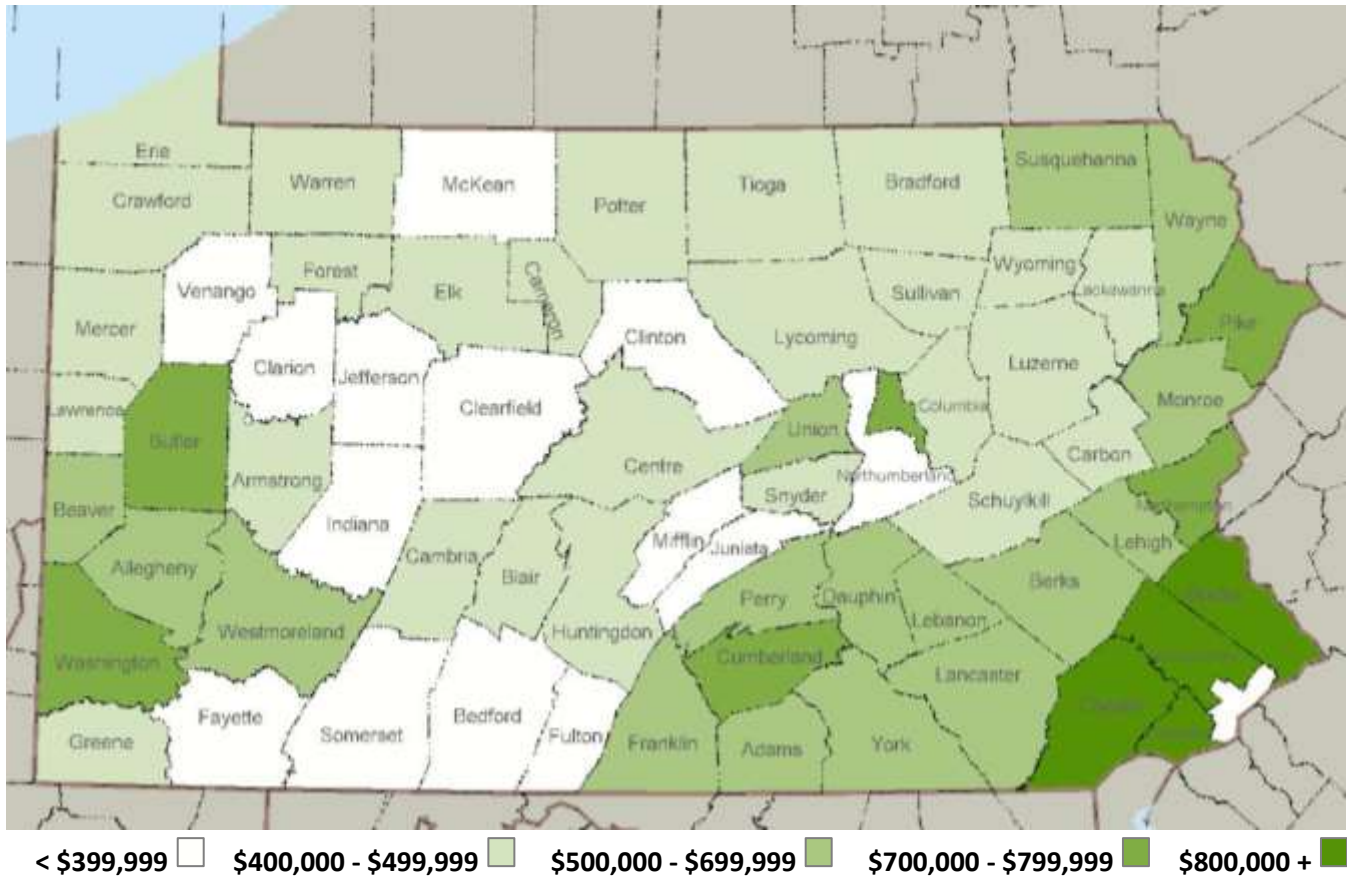
Total 2015 current net worth (CNW) is shown on Map 1 below. Darker shades of green represent greater CNW and white illustrates the lowest CNW. Household wealth is greatest in population centers in the Commonwealth. Lancaster County’s values are elevated due to rising wealth associated with farm land values. Washington County’s values are higher due to wealth associated with its role as a shale energy hub. Philadelphia and Pittsburgh have the highest CNW values in the state.

Map 1. 2015 Total Current Net Worth



Map 2 illustrates 2015 household 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, home to the state capital of Harrisburg, also shows higher relative wealth. Conversely, central city Philadelphia appears white on this map, reflecting lower per household CNW.

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



Notes on Using this Report

Each county and community in Pennsylvania has a unique household wealth profile. Part of our TOW Opportunity Analysis includes a 2015 wealth profile for every county in the Commonwealth. These county profiles are available through the Center for Rural Pennsylvania. It should be noted that small county population size, particularly in rural counties, can create some statistical distortions; users of this research should consult the county level wealth profile for additional insight and information.

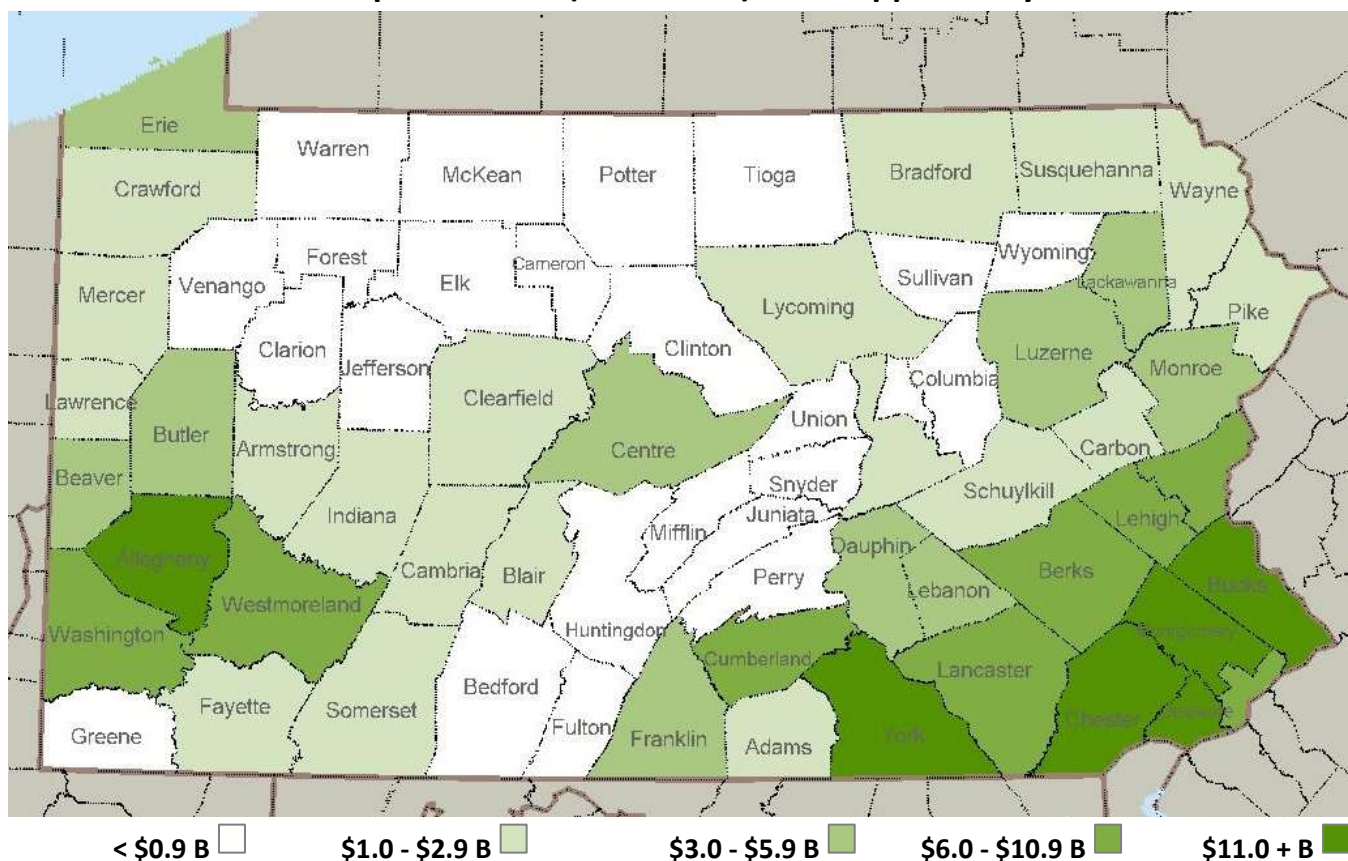
10-Year (2016-2025) TOW Opportunity

The Pennsylvania Transfer of Wealth Opportunity 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 this extended period. 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 purposes. Map 3 presents the 10-Year TOW Scenario, showing total wealth that is likely to transfer over the next decade and be available for charitable giving. Again, darker shades of green indicated a higher TOW opportunity value. 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, East South Central Pennsylvania with its agricultural land wealth, and the Pittsburgh and its suburbs.

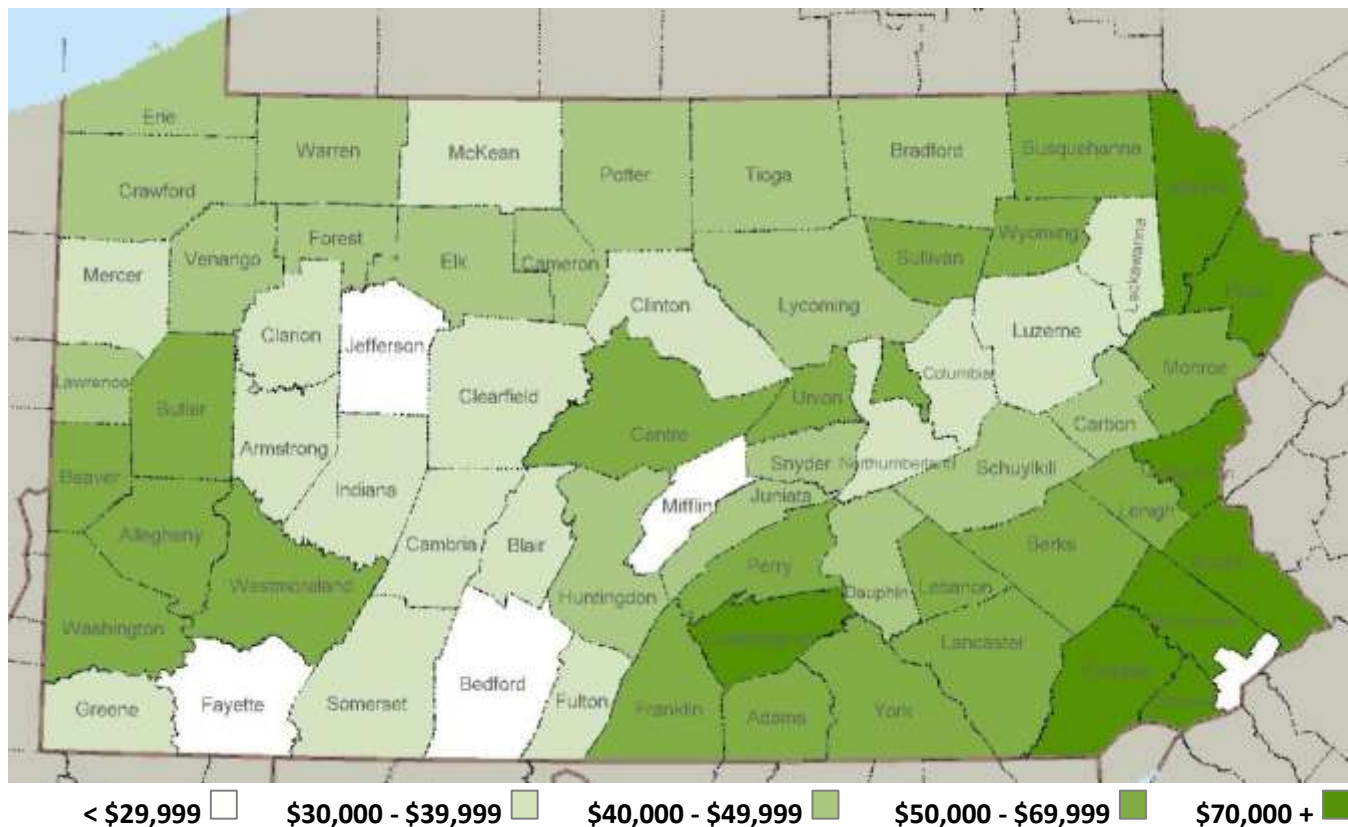
While the magnitude of the TOW opportunity varies across the Commonwealth, *charitable giving potential* is found in every county and community in Pennsylvania.

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



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.

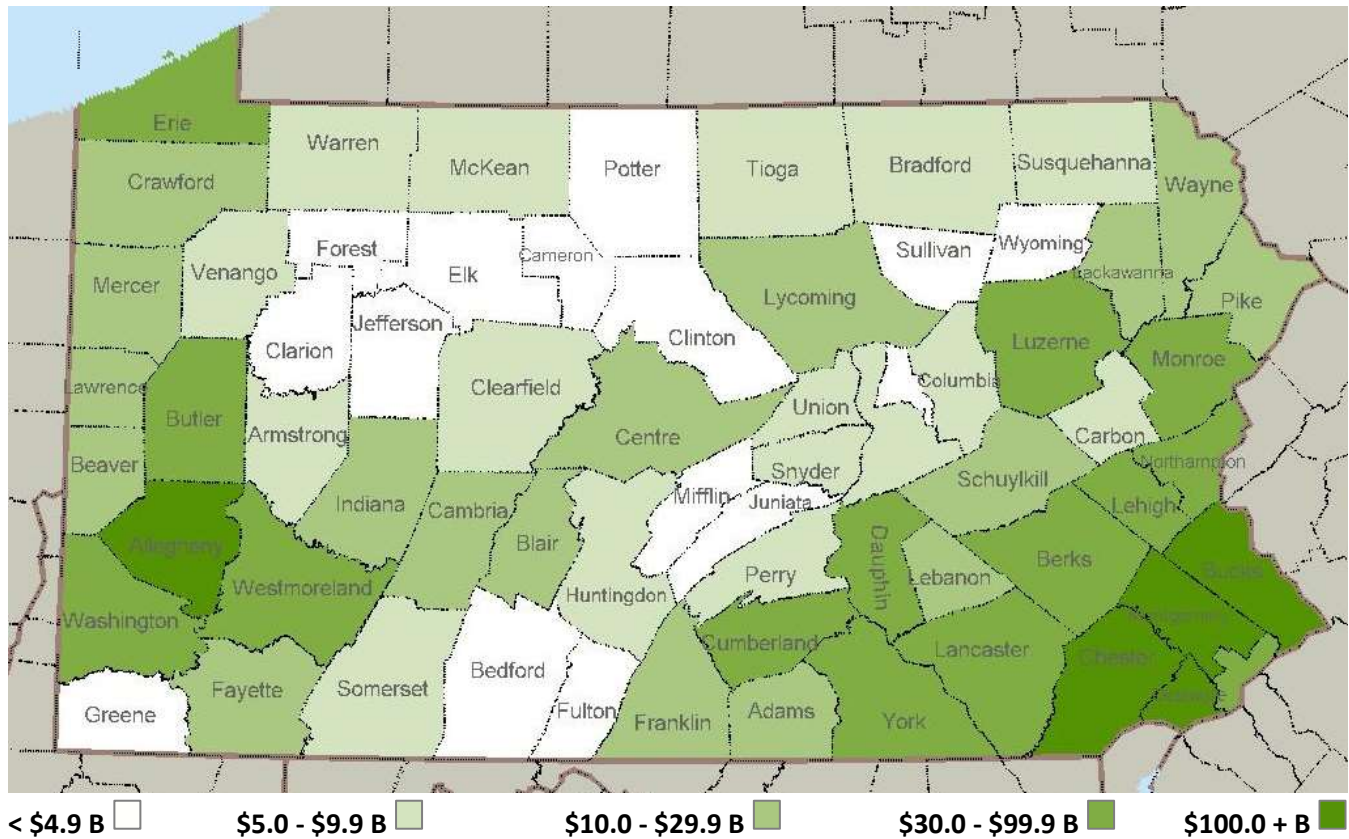
Map 4. 10-Year (2016-2025) Per Household TOW Opportunity



50-Year (2016-2065) TOW Opportunity

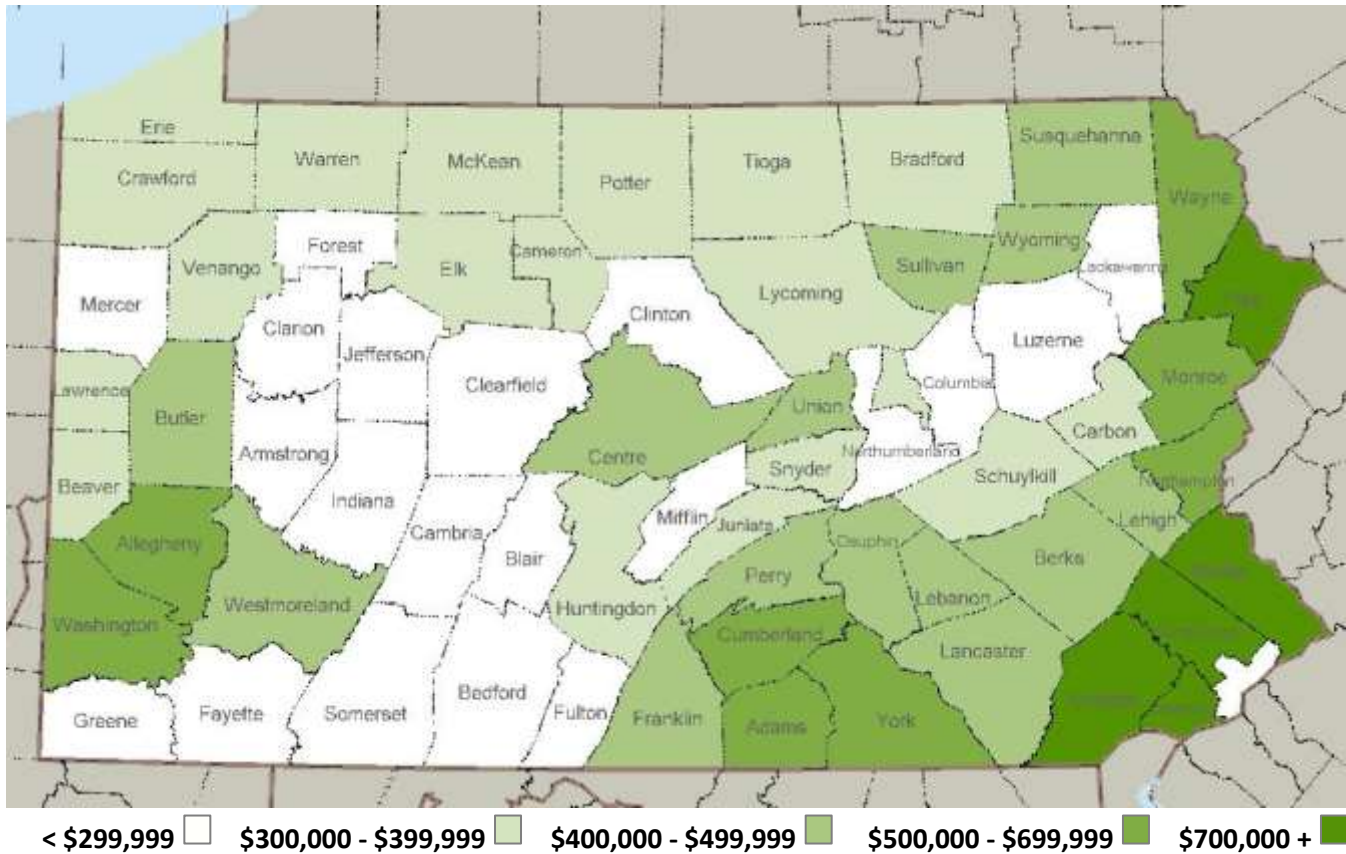
In producing the long-term TOW forecasts, we considered over a dozen unique variables likely to impact the accumulation and transfer of wealth. For example, in parts of the Commonwealth, coal production has been and continues to be important. The coal industry is undergoing significant change as the result of a changing energy sector and environmental policy landscape. We are assuming 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 Shale energy development, rising agricultural land values and emerging creative class clusters in urban centers.

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

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**Notes on Using this Report**

An important factor in capturing the TOW opportunity is understanding how many estates are likely to be transferring over time. The Center has prepared data for Pennsylvania and each of its counties to provide an estimate of the number of estates that will be transitioning each year over time. Generally speaking, the greatest potential for charitable giving occurs when an estate is being transitioned from the current generation to the next – from the wealth holders to their heirs. For an example, see Chart 10 in the Resources section of this report.

Urban and Rural Findings

To provide greater insight on wealth in Pennsylvania, we looked at the TOW opportunity in rural versus urban counties, using the Center for Rural Pennsylvania's [county typology](#). Table 2 presents the findings. An estimated 77% of total 2015 current net worth in the Commonwealth is concentrated in urban counties, compared to about 79% of all households located in urban areas. Urban wealth, on a per household basis, 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% of the TOW opportunity concentrated in urban counties.

Table 2. Summary Findings by Urban and Rural Typology

	2015 Net Worth		10-Year (2016-2025) TOW				50-Year (2016-2065) TOW			
	Value (B)	Phh	Value (B)	Phh	5% Capture (B)	5% Payout (M)	Value (B)	Phh	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

Impact of Shale Energy Development

Shale energy development is changing the economic and social landscape for some Pennsylvania counties. In terms of this TOW Scenario Analysis, we needed to understand how shale energy development will impact household wealth formation in the Commonwealth, and its implications for the TOW opportunity. Shale development influences our wealth formation and TOW opportunity scenarios in the following ways:

Impacts Captured in Our Base Scenarios. Shale energy activity has been underway for most of the past decade. Our base scenario, drawing on historical trends, reflects these impacts. Since shale energy development is still emergent, however, significant additional development and activity is likely. We assume over the coming 50 years that the likely shale resources will be 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 are not resident within 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. Billions will be spent by energy and associated companies in the development and production of shale energy. This activity will create 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 Southeast and Lycoming County in the Northeast. 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 such as [shale development](#). Given uncertainty about the scale of this value-added activity, we are very conservative in the modifications made to our base scenario to reflect additional wealth creation due to value-added development.

Based on our assessment of the potential impacts of future shale energy development on wealth in Pennsylvania, we believe our base scenario estimate of 2015 current net worth – reflecting only historic levels of shale energy development – underestimates 2015 *actual* current net worth. The impact of shale energy development on 2015 estimated current net worth is an increase of \$44.48 billion statewide, or 1.45%.

The **10-Year TOW Scenario** increases by 1.62% over our base scenario because of shale energy build-out, increasing the TOW projection for 2016-2025 by \$4.94 billion.

Assuming full build-out of known shale energy development and including associated economic development and modest value-added development, the **50-Year TOW Scenario** increases by 2.9% or \$74.33 billion.

Other Adjustments

Although Pennsylvania reflects the United States in many ways, we made several other unique adjustments to the TOW scenarios. In counties with significant farm land, we adjusted household current net worth upward to reflect the rising value of agricultural land and declining indebtedness.

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

Finally, three mega-metropolitan areas – New York, Philadelphia and Baltimore/Washington – increasingly influence parts of Pennsylvania. We have adjusted our 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.

Notes on Using this Report

We encourage you to review our special report on [Shale Energy and Wealth](#) for more information on the adjustments made to the TOW Scenario to accommodate changes associated with shale energy development. Similar special reports on [Entrepreneurship](#) and the [Creative Class](#) contain useful information for understanding the TOW Scenario Analysis.

Insights Based on Wealth in America

In 1999, Boston College released its landmark study, [*Millionaires in the Millennium*](#). This research projected that between 1998 and 2052 (two generations) household intergenerational wealth transfer would range from a low of \$41 trillion to a high of \$136 trillion. Ultimately, the more conservative \$41 trillion TOW estimate was accepted as a plausible scenario of future TOW opportunity. Adjusting for inflation, the \$41 trillion TOW estimate would be valued at \$59 trillion in 2015 dollars. This study sparked a great debate and focused philanthropic development across the United States and even globally.

2010 Center U.S. TOW Scenarios

Boston College elected not to update their *Millionaires in the Millennium* scenarios. In 2010, the Center prepared four likely scenarios of household current net worth and TOW opportunity using the Census Bureau's recent population forecasts. Considering the four national TOW scenarios, we concluded that a mid-range projection, estimating the 2010-2060 TOW opportunity at \$75.2 trillion, was most plausible. This estimate is higher than the one generated by extrapolating from Boston College's work (\$59 trillion) but is reasonable given the available data and research.

Current U.S. TOW Findings

As part of the TOW Opportunity Analysis for Pennsylvania, we provide updated TOW scenarios for the U.S. The updated (2015-2065) findings are:

- 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, we 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 4 presents index values for Current Net Worth, 10-Year and 50-Year TOW Opportunity values.

According to Esri, 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 as a result. 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.

Table 4. 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 PA value is relatively higher than the U.S. value. A value of less than 1 indicates that the PA value is relatively smaller when compared to the U.S. value.

Household Wealth Formation by Decade

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

Table 3. 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%

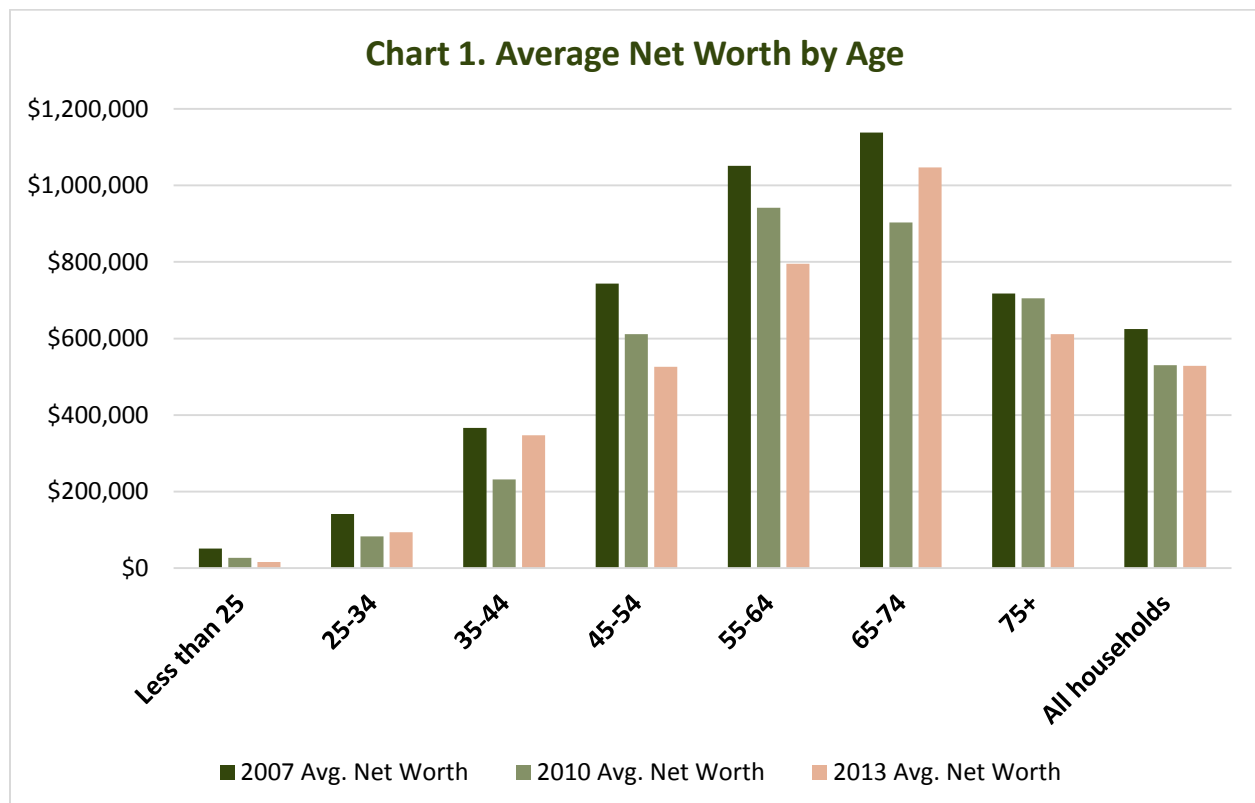
Source: Federal Reserve source data compiled by the Center for Rural Entrepreneurship, 2015.

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 the increased income and wealth inequality, with relatively few American households doing very well and the vast majority of households stagnating or losing ground.

American Wealth – 2007, 2010 and 2013 Compared

The Center's TOW Opportunity 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.

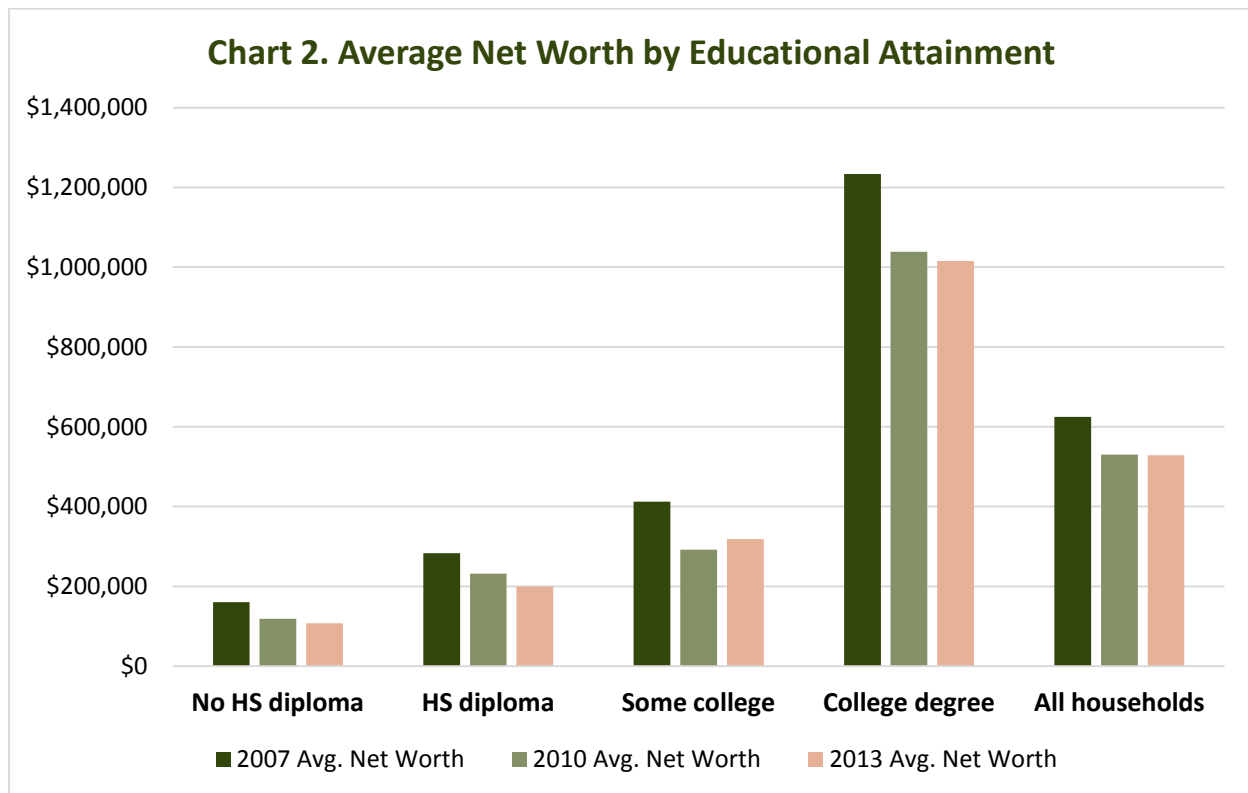
Overall, the Great Recession significantly eroded the wealth of American households. Chart 1 shows average household current net worth by age cohort, highlighting how different age cohorts are doing. All age cohorts show the impacts of the Great Recession, with less wealth in 2013 compared to 2007. However,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



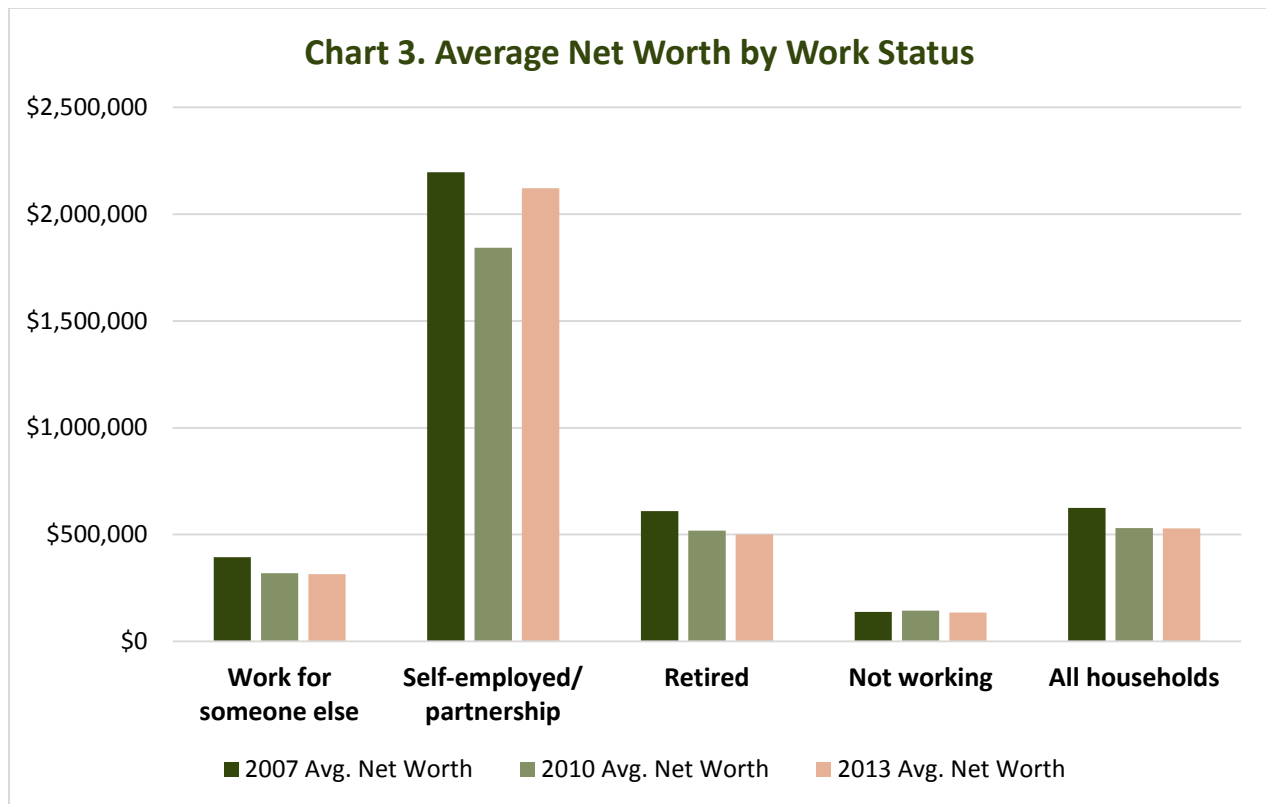
Wealth Drivers

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



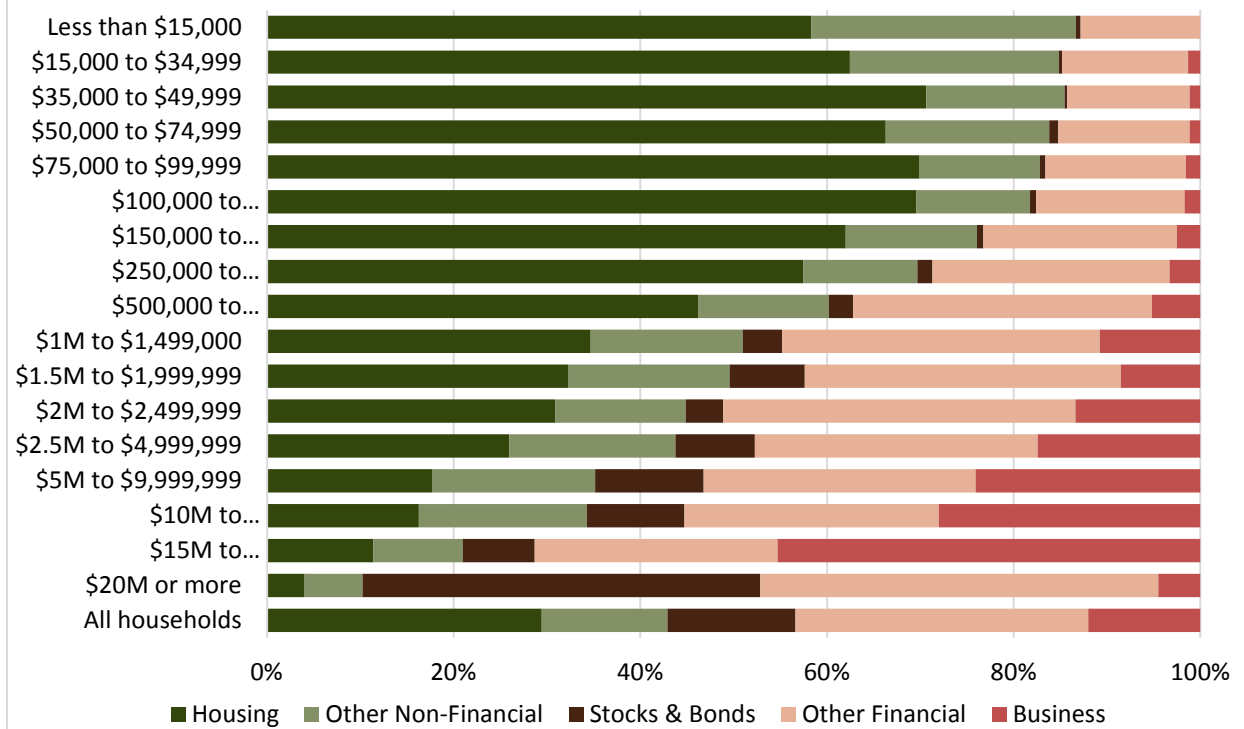
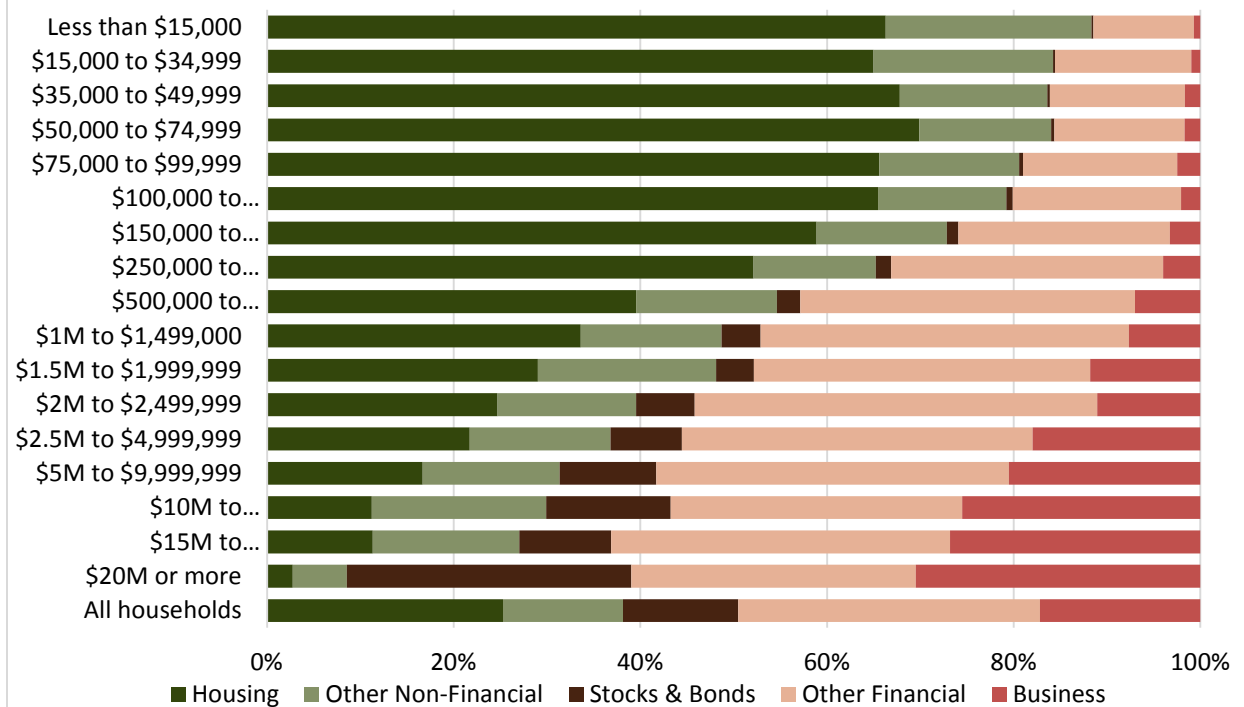
There is an important relationship between how you earn a living – **work status** – and wealth holding in the U.S. Business ownership continues to be a strong pathway to estate formation in the United States. Households led by someone who is self-employed or involved in a business partnership have higher 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.

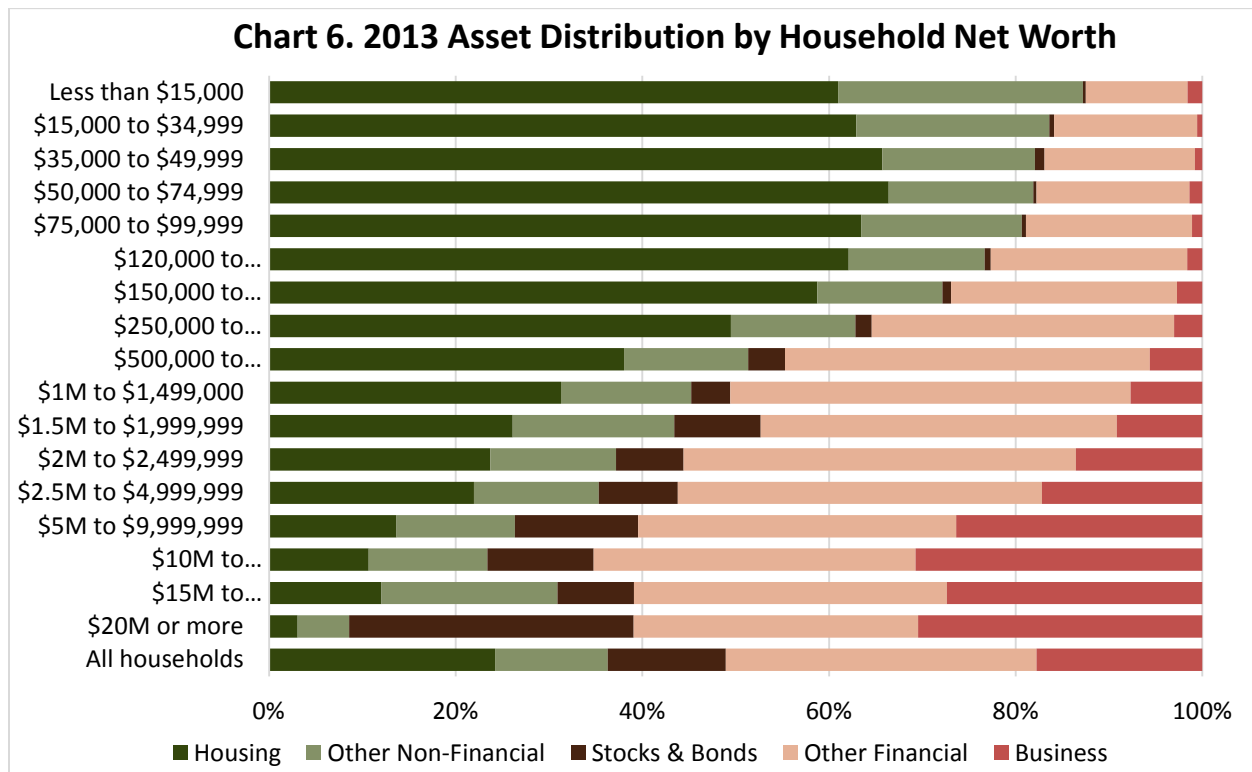


Charts 4, 5 and 6 summarize asset holding by wealth status for 2007, 2010 and 2013. In all three charts, the importance of business ownership in higher net worth households is clear, as business assets make up a more significant portion of their overall portfolio.

Notes on Using this Report

To learn more about the relationship between business ownership, wealth holding and the TOW opportunity, we suggest our two mini-reports on Entrepreneurship and the Creative Class. See the Resources section at the end of this report.

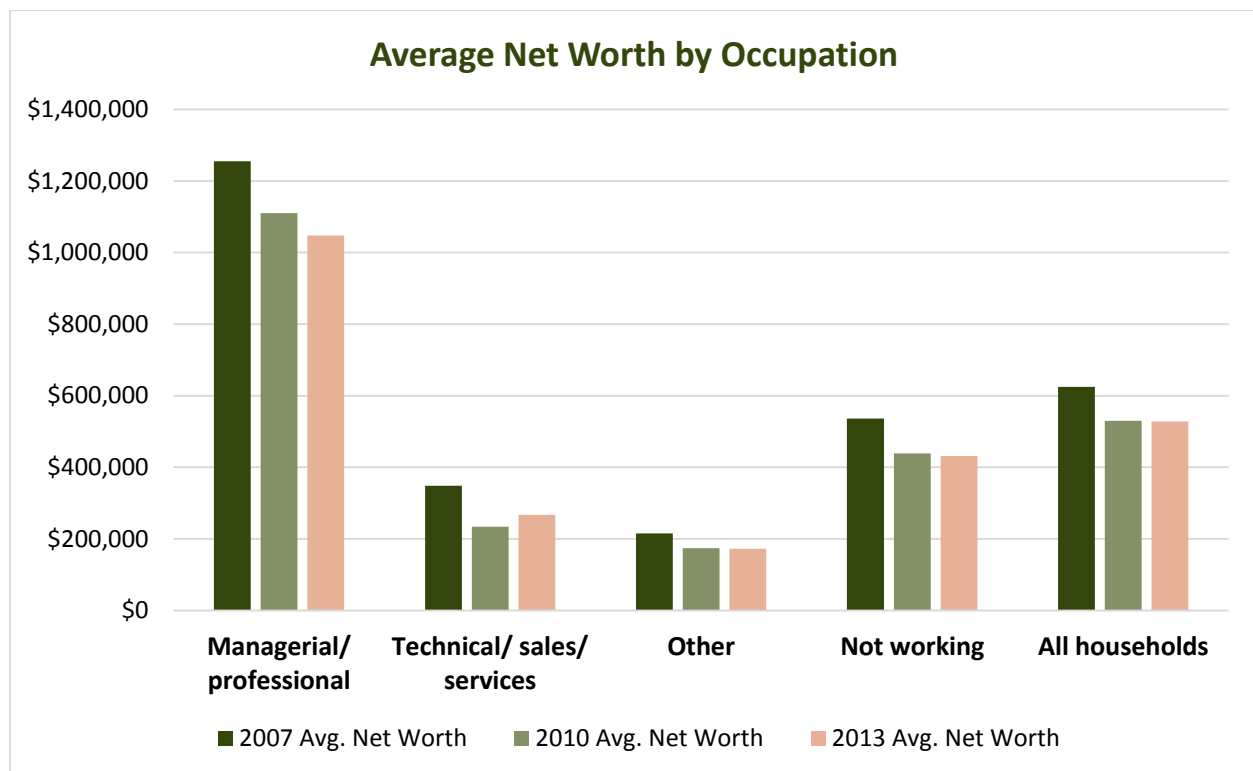
Chart 4. 2007 Asset Distribution by Household Net Worth**Chart 5. 2010 Asset Distribution by Household Net Worth**



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.

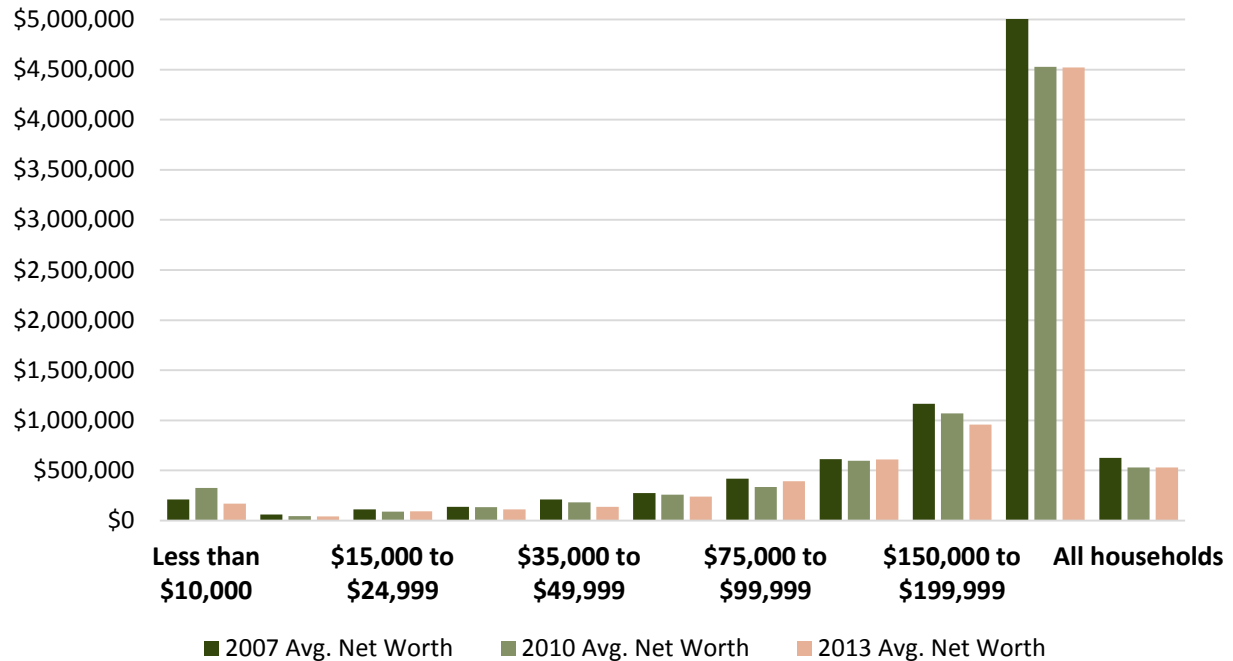
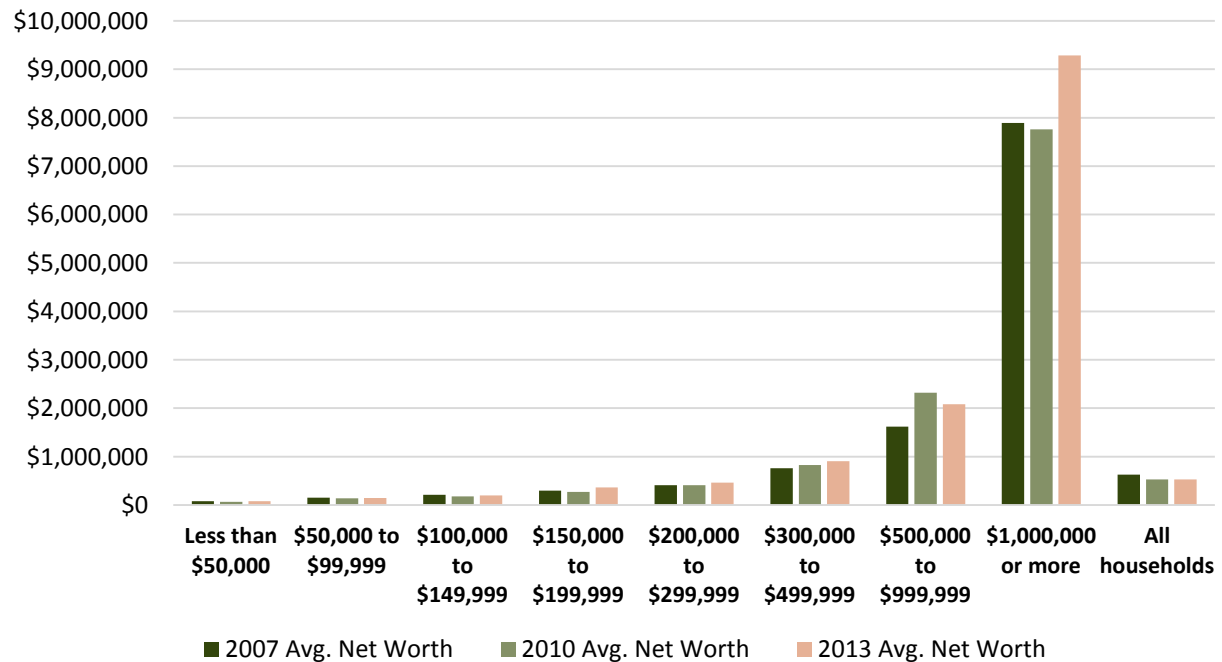
Chart 5 shows that no occupation has recovered fully from the Great Recession, with most wealth values below 2010 values. Only “technical, sales and service” occupations are showing signs of recovery from the 2010 valley.

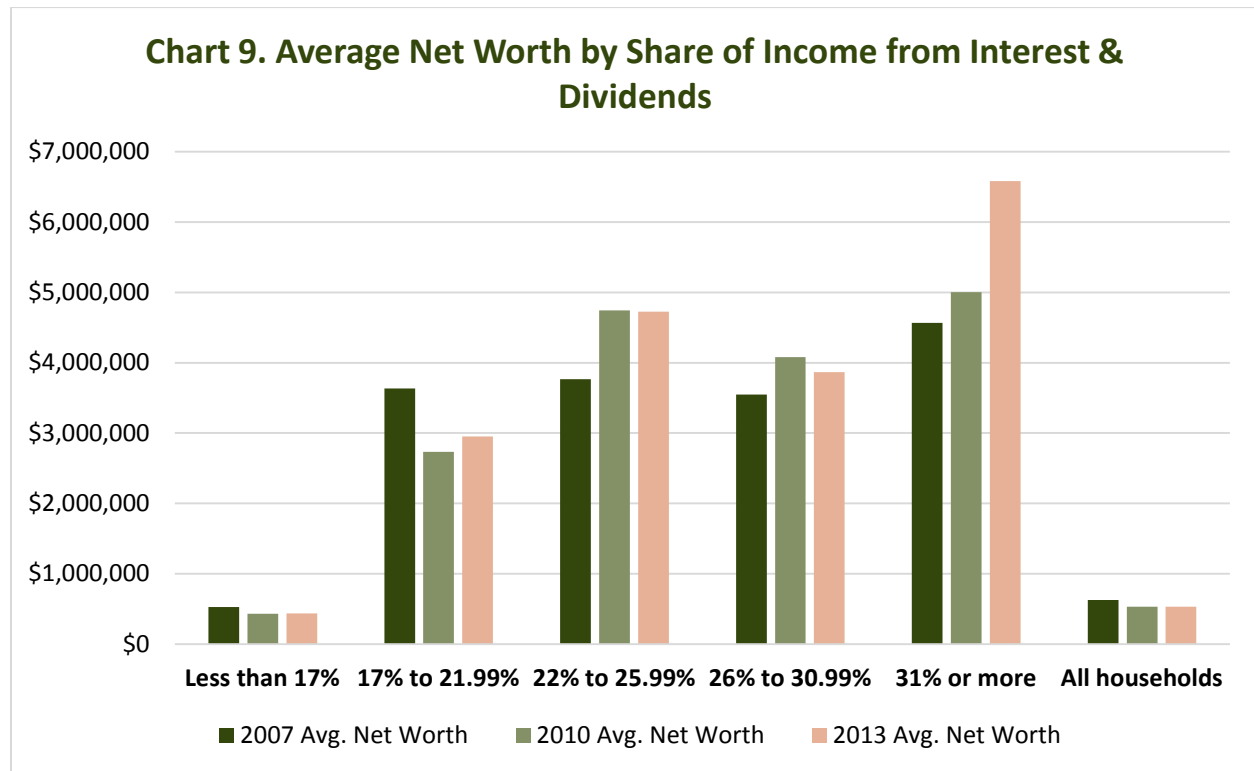


Income has a strong influence on wealth formation. Households that work hard, earn a good income, save and invest are able to grow a larger estate. Chart 7 shows average household net worth by income level. Lower income households have less wealth overall and have not seen a rebound in their wealth since 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 8 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.

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 9 shows that households with more than 30% of their income derived from interest and dividends have significantly greater current net worth than those with less than 17% 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.

Chart 7. Average Net Worth by Household Income**Chart 8. Average Net Worth by Housing Value**



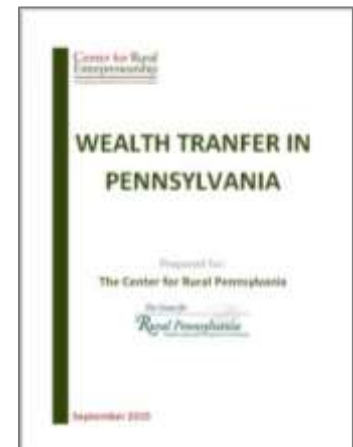
Resources

The following resources have been developed as part of our Transfer of Wealth Opportunity Analysis for Pennsylvania. These resources can be accessed by going to our resource page [here](http://goo.gl/ACq8sG) (goo.gl/ACq8sG).

Findings Report. This report on our TOW Findings Report provides detailed information about our Transfer of Wealth Opportunity analysis for the Commonwealth and its Counties.

Findings Handout. This four page TOW Findings handout provides a quick summary of the findings and is suitable for presentations and workshops.

Methodology Paper. For those interested in learning more about how the Center for Rural Entrepreneurship generates the Transfer of Wealth Opportunity scenarios, the methodology paper provides this background.



Special Mini-Reports

Agricultural Wealth. Agriculture is important to the Commonwealth and particularly significant in certain counties and communities. Our Agriculture Mini-Report provides insight on how increasing agricultural land values and are affecting wealth holding and TOW opportunities across Pennsylvania.

Coal as a Wealth Driver in Pennsylvania. Coal is important to certain communities in Pennsylvania and this mini-report provides an overview of how we have accounted for the impact of coal in the TOW scenarios.

Creative Class Workers. Creativity, innovation and its commercialization drive wealth formation in much of the U.S. economy. This mini-report explores creative class workers in Pennsylvania.



Entrepreneurs. Entrepreneurs are particularly skilled at commercializing innovation – creating new products, services and markets. Concentrations of successful entrepreneurs can result in higher wealth formation, and this report explores the relationship between entrepreneurship and wealth.

Shale Development in Pennsylvania. Dr. Dick Gardner, natural resource economist and part of the Center's TOW team, developed detailed analysis regarding how unconventional shale energy development will impact household wealth and TOW over the scenario period.

Special Populations. Some special populations have historically had unique philanthropic characteristics. Populations including the Amish, Mormon and

other social and religious groups tend to focus their giving within their communities and do not give for secular charitable purposes. This report addresses how these special populations could impact the TOW scenarios.

Urban Growth Hubs. Cities can serve as regional growth hubs particularly as they become more focused on new, knowledge, or innovation economy activities. This report looks at how Pennsylvania's large metropolitan centers, including those neighboring and influential centers of New York City and Washington D.C., may influence regional wealth formation in both the 10-Year and 50-Year scenario periods.

Seasonal Residents. Our TOW analysis estimates the wealth associated with permanent residents only. However, seasonal residents can develop an affinity for their second home communities and sometimes establish permanent residency there. This report explores the TOW potential for communities in the Commonwealth with high levels of seasonal homes and residents.



Minorities. Minority populations (e.g., Hispanic, African American, Native American and Asian) have unique wealth formation and wealth holding characteristics. Communities with large minority populations may see different wealth patterns as a result. When these minority populations are also immigrants and refugees, further refinements in our TOW scenarios are needed. This mini-report addresses minority populations in Pennsylvania.

Group Quarters. Group quarters, ranging from prisons to college housing, can impact wealth formation and TOW opportunities, particularly in smaller and more rural communities. Our new methodology better calibrates how group quarters impact wealth formation, wealth holding and TOW opportunity. This mini-report is produced for those rural counties with relatively large group

quarter populations.

Timber. Our first TOW study identified timber resources as a unique wealth asset. The new study methodology captures the influence of timber-related income on household wealth and, as a result, a mini-report on timber was deemed to be unnecessary.

State and County Reports

Sample County TOW Report. Our [website](#) provides numerous examples of how TOW results are presented at the county level. We have produced a sample county TOW report using Forrest County data. This report is modeled on one of our most effective community TOW reports developed with the Amarillo Area Foundation.



Economic Drivers Profile. Every community has a unique economy. There is a strong connection between the kind of economy a community has and its wealth formation potential. We produced a one page Economic Drivers profile for each county that highlights the economic activities that are shaping their economy today. We used this information to fine-tune the TOW scenarios for each county in the Commonwealth.

Wealth Drivers Profile. This Findings Report shows the relationship between key

demographic and economic indicators and household wealth holding for the U.S. as a whole. For each Pennsylvania county, we produced a profile of key wealth drivers. This information can be helpful in understanding your community's TOW potential. We used this information to shape our TOW scenarios for each county.

Household Net Worth Profile. The county household net worth profiles are based on 2015 estimated data provided by the market research company Esri. This information can be helpful in understanding household wealth in your community and the potential for increasing charitable giving in support of community building.

Other State and County Resources. Since charitable giving potential is greatest at the time an estate is transferred, Chart 9 provides an example of a county chart showing the number of estates transitioning over time. Similar charts are available for each county. Charts 10 – 13 provide dynamic visualization of how we assume the State and its counties will change over the 50-year Scenario period considering: change in population by age cohort, change in household CNW by age cohort, and change in TOW opportunity by age cohort. These charts are available for each county and can be used with the **County Wealth Profile** to better understand each county's unique potential for increasing charitable giving.

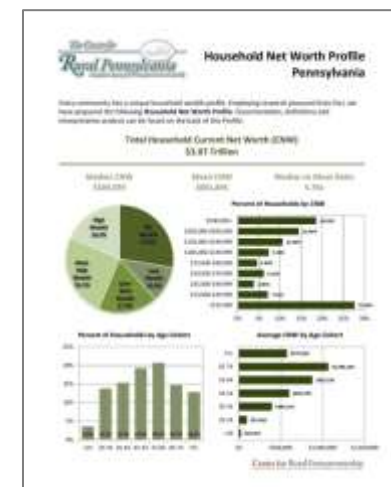
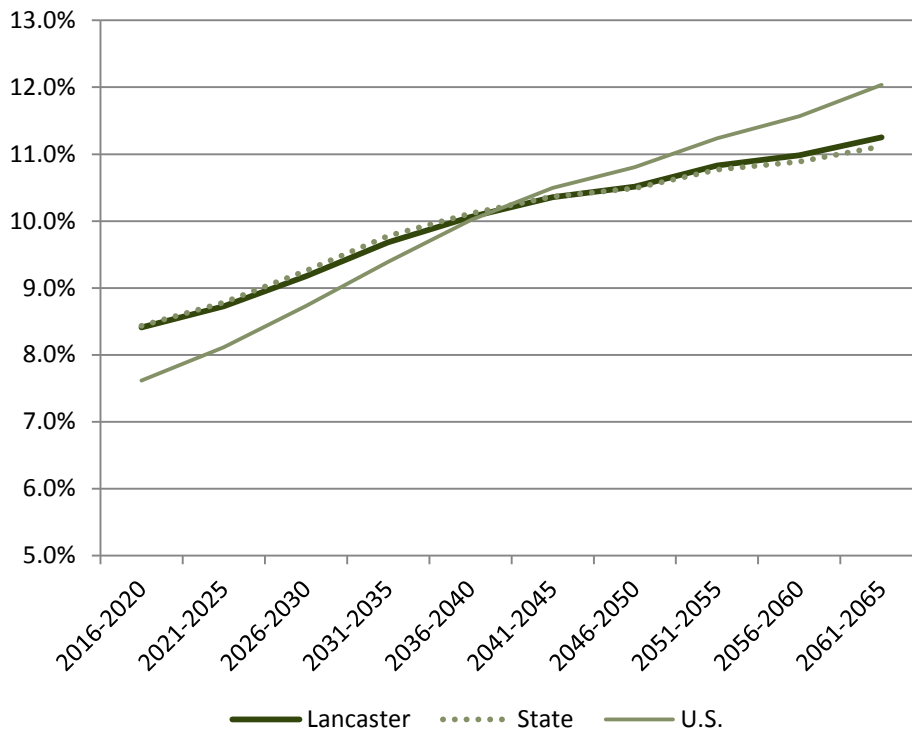
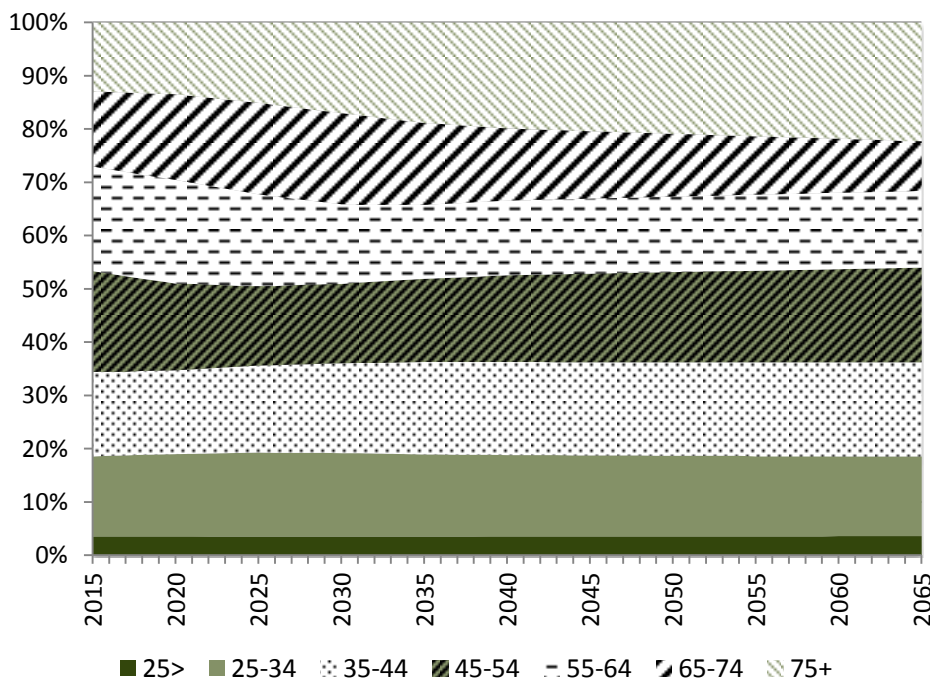


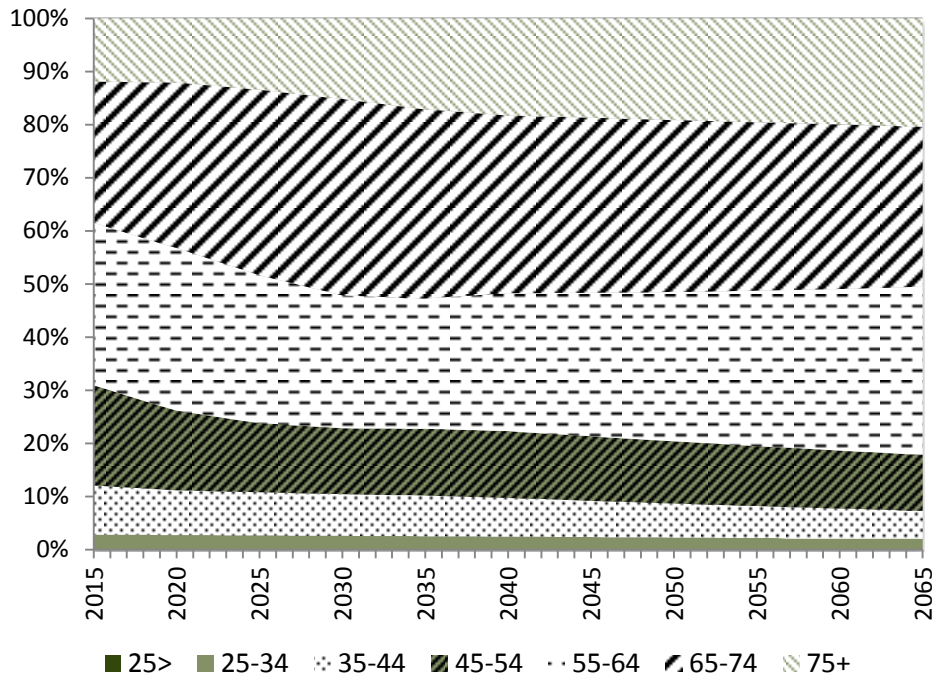
Chart 10. Total Number of Estates**Timing of Estate Transfers.**

Every community has a unique demographic history and profile. Chart 10 illustrates our projections of estate transfers over the 50-year TOW scenario for Lancaster County, PA. We have produced these charts for the State and each county.

Chart 11. Projected Households by Age Cohort**Change in Households by Age Cohort.**

The following chart illustrates how the composition of households changes by age cohort over the scenario period. These charts are available for each county.

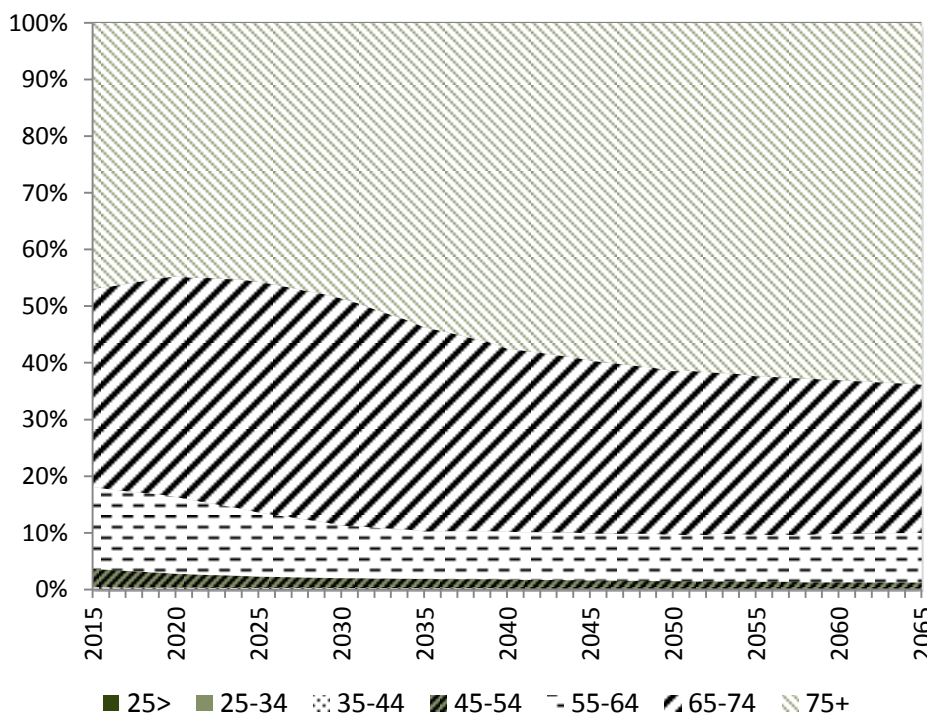
Chart 12. Share of Total Net Worth by Age Cohort



Change in Share of Current Net Worth by Age Cohort.

Chart 12 for Lancaster County illustrates how the composition of household current net worth by age cohort changes over time. These charts are available for each county.

Chart 13. Share of TOW by Age Cohort



Change in Share of TOW by Age Cohort. Chart 13 for Lancaster County illustrates how the composition of TOW by age cohort changes over time. These charts are available for each county.

About the Center for Rural Pennsylvania

The Center for Rural Pennsylvania is a bipartisan, bicameral legislative agency that serves as a resource for rural policy within the Pennsylvania General Assembly.

The Center works with the legislature, educators, state and federal executive branch agencies, and national, statewide, regional and local organizations to maximize resources and strategies that can better serve Pennsylvania's nearly 3.5 million rural residents.

The Center promotes and sustains the vitality of Pennsylvania's rural and small communities by:

- sponsoring research projects to identify policy options for legislative and executive branch consideration and action;
- collecting data on trends and conditions to understand the diversity of rural Pennsylvania;
- publishing information and research results to inform and educate audiences about the diverse people and communities of rural Pennsylvania; and
- participating in local, state and national forums on rural issues to present and learn from best practices.

www.rural.palegislature.us

About the Center for Rural Entrepreneurship

The Center's mission is to help community leaders build a prosperous future by supporting and empowering business, social and civic entrepreneurs. With our roots and hearts in rural America, we help communities of all sizes and interests by bringing empowering research together with effective community engagement to advance community-driven strategies for prosperity.

Our **Solution Area Teams** empower community leaders to find their own answers to the economic development challenges and opportunities they face:

- *Community Development Philanthropy* provides effective strategies to build local philanthropic capacity and generate development resources.
- *New Generation Partnerships* provides a framework for engaging young people now and attracting them in the future.
- *Entrepreneurial Communities* provides a roadmap for designing and delivering entrepreneurship strategies that work.

www.energizingentrepreneurs.org

About Our Team

Don Macke is Co-Founder and Director of the Entrepreneurial Communities solution area. Through this work, Don helps communities and regions throughout North America grow entrepreneur-focused economic development strategies.



Cathy Kottwitz is a Senior Research Associate with the Center. Cathy serves as the scenario modeler in our Transfer of Wealth™ projects.



Dick Gardner owns and operates an economic and strategic planning business called Bootstrap Solutions located in Boise, ID. He has worked as a policy economist for the governor's office in Idaho and served as the executive director of the Idaho Rural Partnership.



Dana Williams is Project Associate with the Center. Dana provides management assistance and operational support across the Center and has been actively engaged in product development, supporting the creation of a number of online toolkits and resources.



Deb Markley is Co-Founder and Managing Director of the Center for Rural Entrepreneurship. She collaborates with colleagues across the Center to capture and communicate the impact of the Center's work.



Questions & More Information

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