



Percent Household Quality of Life Income Ranges

These three EnviroAtlas map layers estimate the percentages of households in each U.S. Census Block Group in various annual income ranges surrounding a threshold for quality of life. The quality-of-life threshold is based on a national value of \$75,000, adjusted to reflect county variations in cost of living. It represents (in 2009 dollars) the base for a positive quality of life and accompanying emotional well-being. These map layers were created from U.S. Census American Community Survey 5-year Summary Data for 2008–2012.

Why are data on various household income ranges important?

Money may not buy happiness, but it may be a necessary ingredient to achieve higher living standards.¹ Higher economic wealth can improve access to quality education, health care, and housing. One might argue that economic wealth influences mental and physical health.² While most research has focused on how income affects psychological well-being, some studies have found that happier individuals are more likely to perform better financially.³

A recent analysis of U.S. survey data distinguished satisfaction with one's economic position in life (life evaluation) from emotional well-being. Researchers found that life evaluation continued to increase steadily with household income, but emotional well-being stopped increasing once annual income exceeded \$75,000 (in 2009 dollars). These results suggested that a \$75,000 annual household income may represent a threshold to good quality of life in terms of emotional well-being. At such a threshold, the basic needs of life (food, shelter, health care, leisure time) have been met and some of life's major stresses reduced.⁴

Of course, an income threshold may be affected by many variables—family size, inflation, personal debt, and regional cost of living. A more refined income threshold for well-being or happiness can be readily attained by adjusting for the local cost of living, which is highly variable across the country.⁵ For example, when adjusted figures are examined, the \$75,000 income equivalent for Mississippi vs. Hawaii is \$61,600 vs. \$107,000 (in 2015 dollars).⁵

The three metrics covered in this data fact sheet, Percent Household Quality of Life Income Ranges, depict the percentage of households with incomes 1) above \$200,000; 2) above \$75,000 and below \$200,000; and 3) above twice poverty level (\$30,000) and below \$75,000. These income



Photo: Boston neighborhood, J. Labor

ranges represent low, medium, and high wage categories surrounding the \$75,000 threshold value. A companion map, Percentage of Households below the Quality of Life Threshold Income, depicts the percentage of households within each census block group with incomes that fall below the adjusted threshold value of \$75,000 per year. Additional income data are available under the Demographics Layers tab in the EnviroAtlas interactive map; these include population and percentage population with incomes below twice the poverty level. All these maps are summarized by census block group.

How can I use this information?

These maps illustrate patterns of economic status; they can facilitate healthy community development planning and research. Federal, state, and local governments can use them to investigate disparities in community living standards and well-being, identifying places that might benefit disproportionately from improved access to quality education, health care, and housing.

Natural infrastructure may also be deployed to buffer hazards, supply goods, and enhance opportunities for healthy lifestyles. Benefits from [ecosystem services](#) may compensate to some degree for household purchasing power to attain good quality of life. These income maps can be overlaid with EnviroAtlas ecosystem services maps to portray the distribution by income of beneficial natural infrastructure. This synthesis can be performed nationally, regionally and, at the block-group level, locally for [more than 1200 cities and towns](#). Examples of 85+ maps indicating availability of neighborhood ecosystem services are Percent Green Space,

Temperature Reduction due to Tree Cover, and Residential Population not within 500m Walking Distance from a Park Entrance.

Planners may opt to focus on census block groups or tracts with the highest number of people or proportion of vulnerable populations who would be served by additional resources. These strategies can be assessed with overlays of additional socioeconomic and demographic maps available in EnviroAtlas and from the U.S. Census.

How were the data for this map created?

Income data by block group are derived from U.S. Census American Community Survey (ACS) 5-year Summary Data for 2008–2012, Table B19001, Household Income Categories. ACS data are collected every month through statistical sampling of the total population; estimates are published on an annual basis. Table B19001 lists 16 income categories in intervals. An IPython scripting tool was used to process the data.

The data were then adjusted by a 2011 county-level cost of living index developed by the Council for Community and Economic Research ([C2ER](#)). The \$75,000 threshold was regionally adjusted by the equation:

Adjusted threshold = \$75,000 × county cost of living index

This equation is the basis for the EnviroAtlas data layer, Threshold Income for Quality of Life. For more details on how the various income categories were combined to create the quality of life income metrics, see the [metadata](#).

What are the limitations of these data?

The accuracy of these data layers is linked to the accuracy of the ACS Survey, which could be limited by its multiple data

collection agencies, methods, and calculations. Accuracy of ACS data increases with the use of multiple-year summary data (e.g., 2008–2012 summary data) and the use of *percentages* of household characteristics rather than *numbers*. Estimates for rural areas with low populations should be interpreted with caution.

While the cost-of-living index was developed at the county scale, these adjusted income maps are presented at the census block-group scale to facilitate synthesis with other EnviroAtlas maps. EPA developers made the assumption that cost of living does not vary significantly within a county. However, variations may exist, particularly for large counties with both urban and rural populations.

How can I access these data?

EnviroAtlas data can be viewed in the interactive map, accessed through web services, or downloaded.

Where can I get more information?

A selection of resources on income, quality of life, and well-being is listed below. For additional information on the data creation process, access the [metadata](#) for a data layer. To ask specific questions about this data layer, please contact the [EnviroAtlas Team](#).

Acknowledgments

The data for this map were prepared by Yan Jiang, Student Services Contractor with the U.S. EPA. The fact sheet was created by Yan Jiang; Yongping Yuan, Anne Neale, Laura Jackson, and Megan Mehaffey, U.S. EPA; and Sandra Bryce, Woolpert, Inc.

Selected Publications

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 2. Zahran, H.S., R. Kobau, D.G. Moriarty, M.M. Zack, J. Holt, R. Donehoo. 2005. [Health-related quality of life surveillance: United States, 1993–2002](#). Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report Surveillance Summaries* 54(4):1–35.
 3. De Neve, J.E., and A.J. Oswald. 2012. [Estimating the influence of life satisfaction and positive affect on later income using sibling fixed effects](#). *Proceedings of the National Academy of Sciences* 109(49):19953–19958.
 4. Kahneman, D., and A. Deaton. 2010. [High income improves evaluation of life but not emotional well-being](#). *Proceedings of the National Academy of Sciences* 107(38): 16489–16493.
 5. Short, D. 2016. [Happiness revisited: A household income of \\$75K?](#) Advisor Perspectives Viewpoint, Advisor Perspectives. Accessed June 2018.
- Killingsworth, M.A. 2021. [Experienced well-being rises with income, even above \\$75,000 per year](#). *Proceedings of the National Academy of Sciences*: January 26, 2021 118 (4) e2016976118; <https://doi.org/10.1073/pnas.2016976118>.
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