

Measuring The Economic Benefits of Services for Homeless Youth

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Introduction

Homeless living produces numerous indirect costs to a society while also producing little tax revenue to a society. One way to view social services directed at supporting individuals suffering with homelessness is as an investment in people who go from having very few if any options, and exponentially growing the human capital value of that individual. That individual goes from having a very high chance of draining a society of resources to instead having a very high chance of adding to the resources of that society.

Methodology

While not simple, it is possible to measure the impact of a social service organization. We start with the typical experiences of the population served. The most common outcomes for people who experience those conditions without any support will form the baseline costs of the analysis. The next part of the puzzle is finding the most common outcomes for people who receive support. The economic impacts of Tubleweed services can then be calculated by comparing the two groups.

In 2012 Bethan Thomas¹ at the University of Sheffield found that homelessness reduces the likely life span of people by 30 years. That study was specific to populations in England yet is very likely to be applicable to people enduring similar circumstances in other developed countries (what used to be called first world, Organisation for Economic Cooperation and Development member nations). That number gives an effect of homelessness on English residents in 2012. The World Bank's World Development Indicator for total life expectancy at birth in years² gives the number of years that an "average" person born in that country in that year can reasonably expect to live. Those numbers come from weighted averages from United Nations Population Division World Population Prospects, census reports and other statistical publications from national statistical offices, Eurostat Demographic Statistics, United Nations Statistical Division Population and Vital Statistics reports, U.S. Census Bureau International Database, and Secretariat of the Pacific Community Statistics and Demography Programme.

Given the World Bank expectation of age for the United Kingdom in that year, the Thomas estimated reduction amounts to .629 less years. Applying that reduction ratio to all the values in the World Development Indicator for life expectancy allows us to look at different countries and different years, recognizing that such a generalization is likely only valid for developed countries and not developing or underdeveloped countries.

Once we know how long someone experiencing homelessness can expect to live

in a developed country, we need a cost to a society that indirectly supports those people. In 2014 Gregory A. Shinn³ found that homelessness support cost \$31,065 per year per person in central Florida. Tracking only public expenses generated by indirectly supporting 107 chronically homeless individuals in central Florida with law enforcement and medical treatment costs, Shinn's cost number when combined with the Thomas adjustment to the World Bank life expectancy number provides a likely amount spent by a society per person experiencing homelessness.

Matching tax rates⁴ with average earnings⁵ with the mean work life⁶ of 34.1 years (38.8 for men and 29.4 for women) provides the expected amount that an average person is expected to contribute to society in monetary units⁷.

Across all age groups, the average amount of taxes paid per year is estimated to be \$8,844.46. The estimated amount of missed taxes paid over a person's lifetime is therefore \$301,596 adjusting for the average number of years that someone is expected to work. The total cost of homelessness is therefore the sum of lost taxes (\$301,596) and total lifetime support after applying the Thomas lifespan adjustment (\$1,543, 504). The total cost is estimated to be \$1,845,100.

Conclusion

In 2014 dollars, someone working for an average number of years, paying an average amount of taxes, can be expected to contribute \$301,596 over their entire lifetime. Conversely, someone who spends their entire life homeless with no support can expect to cost society \$1,543,504 over the course of their lifetime. The indirect cost is lost, but so are the expected tax contributions. The total estimated loss to society therefore, is a striking \$1,845,100. Organizations like Tumbleweed save not only people from tragic circumstances, they also save societies vast amounts of financial capital.

Notes:

1 Thomas, B. (2012). Homelessness kills (No. ISBN 978-1-899257-75-1) (p. 56). London: Crisis UK.

2 Badiee, S. (2014). World Development Indicators 2014. Washington, DC: World Bank.

3 Shinn, G. A. (2014). The Cost of Long-Term Homelessness in Central Florida (p. 25). Orlando: Central Florida Commission on Homelessness.

4 Koskinen, J. (2016). U.S. Individual Income Tax: Personal Exemptions and Lowest and Highest Bracket

Tax Rates, and Tax Base for Regular Tax (Selected Historical and Other Data Tables). Washington, DC: Internal Revenue Service.

5 Groshen, E. (2016). Earnings by Demographics (Labor Force Statistics from the Current Population Survey). Washington, DC: Bureau of Labor Statistics.

6 Smith, S. J. (1986). Worklife Estimates (Bulletin No. 2254). Washington, DC: Bureau of Labor Statistics.

Most of the calculations for this article were done using R. The code for that is available upon request.

About the company

Campbell Management and Analytics Group LLC (CMAGWeb.com) is a start-up that is focused on helping small and emerging business and non-profit organizations harness the power of their data and information. We help our clients develop data collection plans, analyze data with state of the art statistics and implement ways to distribute institutional knowledge throughout an organization. We focus on the development of actionable intelligence that can be used to make decisions and predict outcomes.

About the owner

Jeff Campbell is a freelance statistician and data analyst. Jeff primarily works with non-profits and small businesses throughout the United States to provide state of the art data analytics, statistics and information management solutions. Jeff has a Master's Degree in the Social Sciences and over 25 years of experience analyzing both quantitative and qualitative data. Most of Jeff's career has been spent working for very large organizations and companies working on a wide range of statistical analysis. In addition, Jeff has a long list of trusted partners that he works with to provide website, accounting or other areas that are outside of his own areas of expertise.

About the author

Abel Roasa taught technology use for federal and state government agencies, quasi-government, not-forprofits, and businesses. An Eagle Scout and Toastmaster, Abel studied economic history at George Mason then completed a Master of Arts in Teaching in social studies at the University of Georgia. Abel works on both statistical and economic consulting projects.