HENRY GEORGE SCHOOL OF SOCIAL SCIENCE

Report on a Land Value Calculator

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ABSTRACT - The Henry George School's land value tax calculator is an interactive tool designed to help researchers, policy makers, educators, and students to explore and understand the relationship between land dimensions expressed in acres and land values in the United States. Additionally, the tool allows for the dynamic exploration of varying tax rates to determine target land tax values. This report summarizes the tool.

Overview

The Henry George School of Social Science (*www.hgsss.org*) released its LVT (Land Value Tax) Calculator in December of 2020. This new software is an exciting, interactive tool designed to help researchers, policy makers, educators, and students as well as those who are simply curious about how municipalities can better raise revenue to pay for public services and support urban development.

The LVT Calculator offers the simplest way to explore and understand the relationship between land dimensions expressed in acres and land value in dollars. Additionally, the tool allows for the dynamic exploration of varying tax rates selected by the user to determine expected Land Tax values. The calculator also graphs this data and provides adjustable mapping information which is perfect for visual thinkers.

Description

The concepts behind the Land Tax approach were popularized by Henry George in the 19th Century and are now introduced through this Internet based tool supporting the calculation of such taxes (George, 1879). The calculator described here brings to life the Land Value Tax concept by automating the calculation of Land Valuation and Land Tax based on user defined Tax Rates. Earlier prototypes explored how to best develop these approaches (Cusick, 2019). This new interactive tax calculator (LVT Calculator) can be used to explore user selected tax rates for over 3,100 Counties in the US.

This model can then help researchers, policy makers, and others, understand if such a tax level would meet appropriate funding needs and to what level these taxes would need to be set. A useful scenario is to first research the total governmental revenue which is in place currently for a given County. Then compare this amount with the revenue levels generated by setting different tax rates using the land value in the calculator for the same jurisdiction. Since all US Counties are included except those in the US Territories a wide variety of studies can be conducted. Of course, another intriguing approach is to explore regions of interest and vary the tax rates.

The results of our testing indicate that a Land Tax model can often indeed replace current governmental tax revenue schemes with relatively low percentage rates of Land Tax Rates (Cusick, 2019). This project was originally motivated to contrast the Wealth Tax Model tool by Emmanuel Saez and Gabriel Zucman (Saez, 2019) and simultaneously animating the Georgist concepts around Land Valuations and Tax models (George, 1879). It is argued by Georgists that a Land Tax provides a more useful and fair tax plan than an income tax, VAT, tariff approach, or wealth tax. Thus, having this calculator to manipulate rates and outcomes is supportive of such analysis.

The data driving the Land Tax Calculator comes primarily from public domain US government provided sources in the case of the County level average land values (Larson, 2019) and Cohen (2017). This data is supplemented by State land values provided by Frohlich (2019). In addition to the tax levels and land values the tool provides GIS (geographic information system) displays for each query to provide visual and geographic context for the user.

The Tool

In Figure 1 below a sample usage scenario for the tool is presented. In this case the State of California and the County of Fresno have been selected. The Acres and Land Value figures are auto populated. Once the Tax Rate is input by the user the Land Tax is computed and the bar graph is generated along with the geographic map.

The user can redo this analysis with different Tax Rates or other jurisdictions as often as they like. They can also then compare results across jurisdictions and conduct studies based on various thesis or hypothesis.

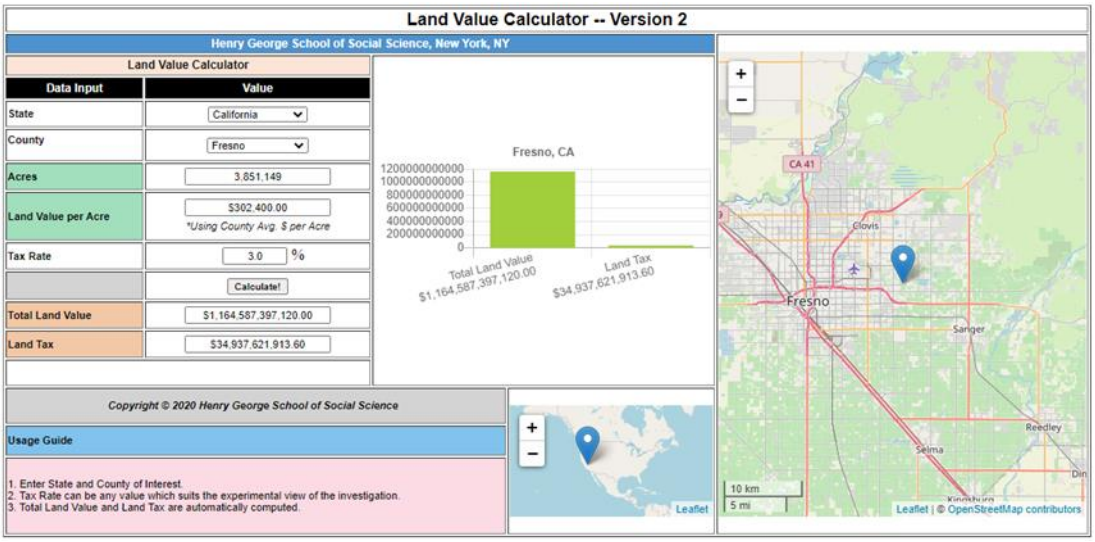

Figure 1 - Sample tool scenario for Fresno County, California

Accessing the tool

Take me to the calculator page

(https://www.hgsss.org/lvt-calculator/)

Conclusions

The LVT Calculator is offered by the Henry George School to the Economic community and to the general public for the purpose of both better understanding the powerful ideas of Henry George and the Land Value Tax but also of stimulating dialog with regard to the relative merits of tax methods. If, as the LVT Calculator demonstrates, small Land Value Tax rates can cover large public revenue needs, why is this method not being discussed as often as other tax methods?

References

(George, 1879) George, Henry, **Progress and Poverty: An Inquiry into the Cause of Industrial Depressions and of Increase of Want with Increase of Wealth. The Remedy.**, D. Appleton and Company, New York, 1879.

(Cusick, 2019) Cusick, James, "Exploring a Land Tax Approach with an Online Calculator", November 2019, DOI: 10.13140/RG.2.2.16296.11523/2.

(Saez, 2019) Saez, Emmanuel, Zucman, Gabriel, & Stoudt, Sara, "*Wealth Tax Simulator*", University of California, Berkeley, Department of Economics, 2019, http://wealthtaxsimulator.org/simulator_app/.

(Larson, 2019) Larson, William, ed., "The Price of Residential Land for Counties, ZIP Codes, and Census Tracts in the United States", **A FHFA Working Paper**, Federal Housing Finance Agency, Version 1.0, January 2019.

(Frohlich, 2019) Frohlich, Thomas C., & Sauter, Michael B., "*Here's how much an acre of land is worth in each of contiguous 48 states in the US*", 24/7 Wall Street, **USA Today**, May 8, 2019.

(Cohen, 2017) Cohen, Michelle, "Study Shows Huge Disparity In U.S. Urban Land Value: With NYC Making Up 10%", **6SFT: Real Estate Trends**, November 3, 2017, https://www.6sqft.com/study-shows-huge-disparity-in-u-s-urban-land-value-with-nyc-making-up-10/.

About the Author

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