

The Relationship between the Colombian 2016 Peace Accords, Agricultural Production, Quality of Life, and Education

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Introduction

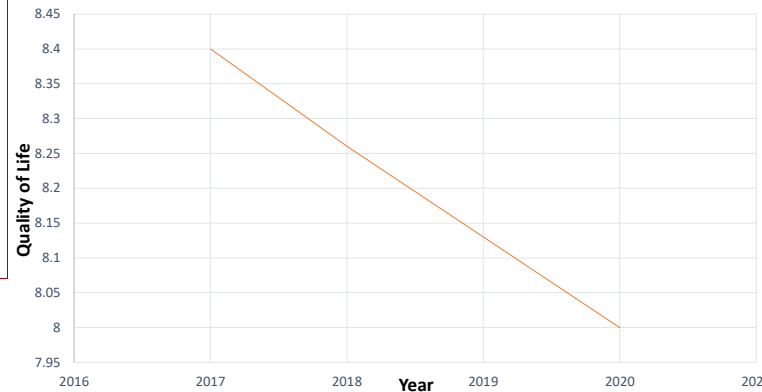
- The Colombian government has focused on rural development and agriculture in their post-conflict environment (Jimenez et al., 2021).
- As a part of Colombian government programs many farmers are being encouraged to switch to legal crops such as bananas, coffee, and cacao (Carvajal-Garcia et al., 2019; Castro-Nunez et al., 2020; Graser et al., 2020).
- Objectives :
 1. Determine if the years after certification of the 2016 Peace Accords with the FARC can significantly predict agricultural production in the country
 2. Determine if there is a significant relationship between the enacting of the rural development programs, national quality of life, and educational enrollment.

Results

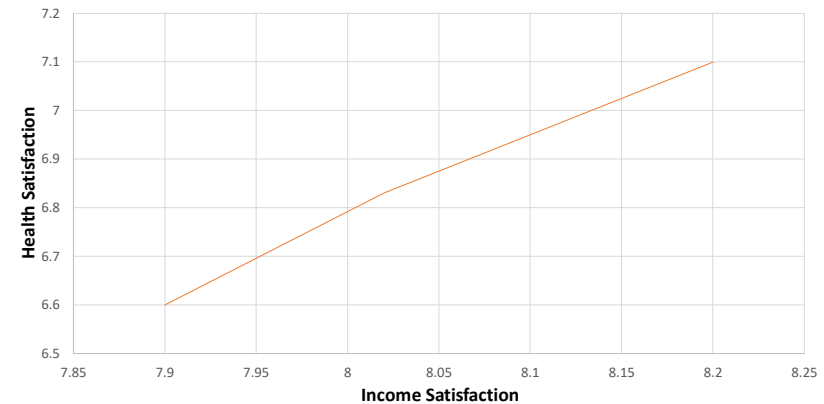
- A multiple linear regression was used to test if year, region, and product type significantly predicted agricultural production. The overall regression was statistically significant ($R^2 = .22$, $F(3, 171) = 15.72$, $p < .001$). It was found that product ($\beta = 18781.03$, $p = .038$) did significantly predict agricultural production, but year did not significantly predict production, while region ($\beta = -57290.93$, $p < .001$).
- There was a significant relationship between year and quality of life ($r = -1.00$, $p = .012$). There was also a significant relationship between income satisfaction and health satisfaction ($r = .998$, $p = .044$). There was no significant relationship between quality of life and educational enrollment.

$$\text{Agricultural Production} = 8197.17 (\text{year}) - 57290.93 (\text{region}) + 18781.03 (\text{product})$$

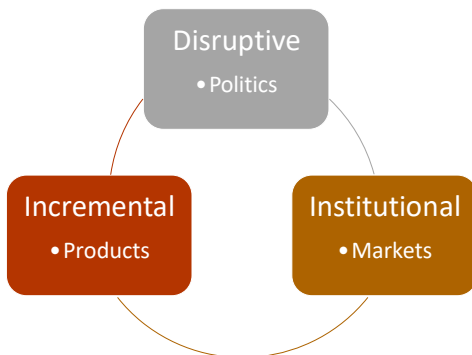
Colombian National Quality of Life by Year



Colombian Health Satisfaction by Income Satisfaction



Theoretical Framework



Social Innovation Theory (Nicholls et al., 2015)

Methods

- National Administrative Department of Statistics (DANE) of Colombia data sets
 - 2017-2020 Formal Education survey
 - 2017-2020 National Quality of Life Survey
 - 2012- 2019 National Agricultural Survey
- Objective 1: multiple linear regression
 - IV: the year, region (Andina = 1, Caribe = 2, Pacifica = 3, Orinoquia = 4, Amazonia = 5), and product type (beans = 1, corn = 2, banana = 3, cacao = 4, coffee = 5)
 - DV: national agricultural production (tons) for beans, corn, cacao, coffee, and bananas as the dependent variable.
- Pearson's r correlation was run with the variables of enrollment, year, quality of life average (Likert scale 1-10, 1 = not satisfied and 10 = most satisfied).



Discussion and Implications

- Since the certification of the 2016 Peace Accords, agricultural production has not been affected, however, certain goods and where they are produced have fluctuated.
- The negative relationship and statistical significance of region could mean that while there are efforts to increase legal crop production in the more rural regions, infrastructure and other support are not reaching these regions.
- The positive relationship and significance of product could indicate that rural farmers in different regions of Columbia are planting more legal crops (bananas, cacao, coffee, beans, and corn).
- Both practice and policy should aim to reach the most rural regions.
- Overall quality of life has decreased since 2016 Peace Accords.
- Further research should target citizens retrospective quality of life since there was no data collected by DANE prior to 2016 on overall quality of life
- National enrollment was not significant for any of the factors, including year.
- The social innovation of the 2016 Peace Accords may be seen more clearly in other realms of daily life rather than in aggregate information.