

How's Life? Regression Analysis of the OECD Better Life Index (BLI)

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ABSTRACT

The aspiration and the quest for a better life has always been a big endeavor in all societies since the beginning of humanity. For more than a decade now the OECD has researched how to better measure well being of a society beyond the cold numbers of GDP and economic statistics. In May 2011, it produced its **BetterLifeIndex (BLI)** (www.betterlifeindex.org) for many countries. The BLI provides a means of measuring social progress in order to both engage citizens and to motivate governments to focus on what sort of society its citizens wish for. The synthesis BLI for each country is based on 11 dimensions reflecting what people consider matters most in their lives. The BLI has been updated and some new indicators have been introduced each year since May 2011. So how is life? What makes for a better life? How do we measure people's happiness and satisfaction in life? This paper aim to provide tentative answers to these questions by analyzing different indicators of the edition 2014 of the OECD BLI dataset.

Keywords: Data Science, Better Life Index, OECD, Well-being, Happiness, Life Satisfaction, Regression.

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INTRODUCTION

We as humans, are naturally curious people. We like to ask questions, know how things work and why, and know what things work better than others. If we look throughout history, one of the main missions of society was to achieve the best type of life satisfaction possible. One where there was a fair justice system, a safe environment, a good community, an access to good education, an ability to get involved with the government, etc. It can be seen done in various ways, from the time of the Romans and Greeks, to the English and the Spanish, the French and so on. All these vastly different and diverse societies had their own ways of what they considered the best way of achieving life satisfaction. If they had felt that they were not satisfied with life the way it was, they would overthrow the rulers or revolutionize the way their society operated. We as a people want an easy going life, and if we can figure out what it takes to achieve such a feat, then we will be truly satisfied.

Although the meaning of a good life and what constitutes it are very subjective and vary for every individual and every society, we all agree that everyone in every part of the world aspires to a good life, whether it is material living conditions or quality of life. For example, for Albert Einstein, sitting at a table with a bowl of fruit and a violin were the recipe for being happy; for Jane Austen, it was a satisfactory income; while for Leo Tolstoy, it was the connection between man and nature and for Albert Schweitzer, it was being healthy and having a bad memory (Kendall-Bilicki, 2012). Nowadays, we have technology and we want to use it to make every aspect of our lives easier. We use it to automate tasks, remind us of things we need to do, inform us of things that are going on in the world, educate us in ways we could not before, etc. However, one of the ways that people are using technology to make life easier, is to try and discover what exactly makes life better for everyone as a whole. In fact, all these different personal views might evolve with time and do not indicate what would make a better life for all. One tentative way to achieve that is by using the

OECD Better Life Index. The OECD collected data from a number of various countries around the world, applied them to some variables, and rated them on a scale in order to be able to determine how a country did in terms of such variables. With this data, they were able to produce a dataset that could help to, not only determine what country was the best in terms of life satisfaction as a whole, but also in terms of what others determined to be more important in terms of having a good life (OECD, 2013).

In this paper, we will be looking at and analyze all the 11 dimensions and their associated indicators of the **BLI** and run it through a regression analysis to determine which specific indicators are best associated with and contribute the most to a better life. We will use the Life Satisfaction indicator as the one constant dependent variable, expressed as a function of the remaining 23 indicators (independent variables) in order to identify what people value most in their everyday lives. We will break down the data and come up with an equation that is weighted towards what is most important to a better life, and then analyze the results in order to try to find out what makes a good life.

2. LITERATURE REVIEW

For years, the only tool used by economist and scientists was the gross domestic product (GDP), which measures the value of goods and services a country produced, from corn to cars, coal to customer services, and estimates progress by how far or how fast it grew from year to year, and in comparison to other countries (Kendall-Bilicki, 2012). Arguably, the GDP misses more than it allows: “the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile” (Robert F. Kennedy, 1968). There is a need for better indicators of societal well-being that extend beyond mere economic growth. Based on its project on Measuring the Progress of Societies, the report of the Stiglitz-Sen-Fitoussi Commission in France, and after more than a decade of research and studies, in conjunction of its 50th anniversary, the OECD came up, in 2011, with the Better Life Initiative and the Better Life Index. From a total of 36 countries (the 34 OECD members plus Brazil and Russia), the BLI is a conglomerate of 11 dimensions

broken down into 24 indicators measuring well-being in those countries. The dimensions can be categorized into two main groups: Material Living Conditions encompassing Housing, Income, and Jobs; and Quality of Life encompasses Community, Education, Environment, Civic Engagement, Health, Life Satisfaction, Safety and Work Life Balance. Each dimension consists of one or more indicators. The Indicators are aggregated in a standardized way producing an overall synthesis BLI of well-being (Philip Hoskins and Douglas May, 2014).

On their website, although pre-set assigned weights and countries’ ranking blueprint are provided to start with, power and flexibility are given to users by the OECD, allowing them to set their own weight for each dimension. In a linear aggregated synthesis index, the weights acts as coefficients that give a concrete form to the relative importance attached to individual components (Foster, McGillivray and Seth, 2013). However, selecting the weights for a multidimensional index is a very difficult problem for which several different techniques can be used (Decancq and Lugo, 2013). Because none of the techniques can provide the right way, the OECD tries to be neutral as far as to decide how important each dimension is for a better life, by making the weight selection process participatory and let users choose what is important and matters most for them.

The OECD has put an interactive display providing an index visualization dashboard that shows the underlying schema of the index. In the center of the graphical visualization area, a flower with 11 petals represents each country. The overall index score for a chosen country is given by the height of the flower representing the country, while a score of a dimension is given by the length of a petal of the flower, and the weight assigned to a dimension is given by the width of a petal. To show a country’s score in each of the dimensions, just hover the mouse over its flower, the score is shown in a little pop up window. This visual online interactive tool allows people from all around the world to build their own customized index by moving a slider, located on the right hand side of the OECD’s web page, to set their desired weight for each dimension to an integer value between 0 and 5; that automatically triggers the ranking of the countries based on the users’ choices. These interactive data visualizations are intended to engage users, and the instantaneous graphical feedback will help them fully understand the content (Cukier, 2011). Users can submit their defined indices to an online database where they will be compared to indices provided by other users around the world.

They have also assigned a numerical value to each of the internationally comparable measures listed above in an attempt to quantify society's current and future well-being. However, the BLI's measurements are highly subjective. There is simply no formula to quantify and calculate well-being. Perception of well-being can differ greatly from one person to another and from one society to another. In that perspective, we recognize and admit that the OECD does not have the knowledge nor the ability to speak for everyone. Their model contains estimated data.

As mentioned in the previous section, the OECD's assignment of a numerical rating to each of their variables is subjective. You could also make the argument that the Better Life's Index's numerical ratings can be very confusing at first glance. Yes, common sense can tell us which variables are of most importance based on their numerical rating, but they're basically just numbers at first glance. The first and arguably the most important part of this process is to be able to understand the data. We needed to do some research on the topic in order to gain a better understanding of how the eleven variables that collectively contribute to the overall well-being of society are quantified.

3. BETTER LIFE INDEX

The Better Life Index covers the thirty-four countries that are members of the Organization for Economic Development and Cooperation plus Brazil and Russia. The BLI does not assign rankings of countries. In order to do a thorough regression analysis, we are using all the 11 variables that make up the Better Life Index. For reference purposes, the thirty-four countries that have been selected for the better life index are displayed in **Figure 3.1** below:

After searching the two major online bookstores for literature on the topic, we only found a single book on the BLI. Frank Ra authored OECD Better Life Index (and other well-being measures). Ra's brief thirty-six page book was published on June 11, 2011. Ra's book sheds very little light on the topic. One could even argue that his book's title is misleading. Ra dedicated one and a half pages out of his thirty-six page book to the Better Life Index. Frank Ra's big revelation on the BLI is that the Better Life Index is calculated through the equation listed below:

Well-being = weighted (Housing + Income + Jobs + Community + Education + Environment + Governance + Health + Life Satisfaction + Work-life balance)

Needless to say, Frank Ra stated the obvious on the page and a half that he dedicated to the BLI. He



Figure 3.1: List of Countries Selected for the Better Life Index
(Data from <http://blog.happybarometer.com/>)

basically took the 11 variables that collectively make the OECD's perception of well-being placed them in the form of a simple mathematical equation. The remaining pages of Frank Ra's book consist of numerous views of how AMARE, Facebook, Google, famous 2015 psychologists, and other organizations subjectively define well-being. Ra displays similar vague equations for the other subjective views of well-being but fails to mention how each variable is either quantified or weighted in his equations.

It was disappointing to learn that the only book on the Better Life Index contained little to no information that could be used for the purpose of our research. Fortunately, there's a wealth of information relating to this topic on <http://www.oecdbetterlifeindex.org/>

On the other hand, some of the topics or dimensions that we thought could be included in the OECD BLI are management of natural resources, equity, justice, and gender/social inequalities, peace and security and religion. Also, the fact that the OECD BLI data is limited to 36 countries, not including countries with big populations like India and China.

4. PROBLEM DESCRIPTION AND FORMULATION

We first downloaded the 2014 edition of the Better Life Index dataset from the OECD website (<http://>

stats.oecd.org/Index.aspx?DataSetCode=BLI). This dataset contains links to the definition and metadata of each indicator in the BLI as well as other information about the source, the classifications, and key statistical concepts about this 2014 edition. The Better Life Index dataset from the OECD's web site consists of the eleven variables referenced on the header of the table shown below. The eleven variables in the dataset are broken down into sub topics. Each variable has one to four sub topics. The sub topics that we have selected for our data analysis are listed in Table 3.0 shown below:

Table 4.1: Dimensions and Indicators of the OECD Better Life Index – Edition 2014

Dimensions	Indicators
Housing	Dwellings without basic facilities
	Housing expenditure
	Rooms per person
Income	Household net adjusted disposable income
	Household net financial wealth
Jobs	Employment rate
	Job security
	Long-term unemployment rate
	Personal earnings
Community	Quality of support network
Education	Educational attainment
	Student skills
	Years in education
Environment	Air pollution
	Water quality
Civic engagement	Consultation on rule-making
	Voter turnout
Health	Life expectancy
	Self-reported health
Life Satisfaction	Life satisfaction
Safety	Assault rate
	Homicide rate
Work-Life Balance	Employees working very long hours
	Time devoted to leisure and personal care

Indicators have different units (percentage, US dollar, years, average score, hours, etc.). In order to have a good comparison and aggregation of the values, they are normalized following a standard formula that converts them into numbers ranging from 0 (for the worst possible outcome) and 1 (for the best possible outcome). Here is the formula:

$$1 - \frac{\text{value to convert} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

For negative indicators such as air pollution or assault rate, the formula is:

$$1 - \frac{\text{value to convert} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

The overall score for each dimension is obtained by calculating the mean of the different indicators for that dimension. For example, the score of the housing dimension, which has three indicators (dwellings without basic facilities, housing expenditure, and rooms per person), is obtained by the following formula:

$$\frac{\text{dwellings without basic facilities} + \text{housing expenditure} + \text{rooms per person}}{3}$$

The overall score of a country is the weighted mean of all its dimensions. (OECD BLI FAQs)

The raw data that we downloaded dataset is shown in **Table 4.2** below:

Table 4.2: OECD Better Life Index – Edition 2014

Housing			Income		Jobs	
Dwellings without basic facilities	Housing expenditure	Rooms per person	Household net adjusted disposable income	Household net financial wealth	Employment rate	Job security
Percentage	Percentage	Ratio	US Dollar	US Dollar	Percentage	Percentage
1.1	20	2.3	31197	38482	72	4.4
1	21	1.6	29256	48125	73	3.4
1.9	20	2.3	27811	78368	62	4.5
0.2	22	2.5	30212	63261	72	6.6
9.4	19	1.3	13762	18141	62	4.7
0.9	25	1.4	17262	17875	67	4.2

In our preparation to do the regression analysis, we made few changes to the original data that we downloaded. The life satisfaction indicator has been relocated at the last column. We removed three rows: Unit, Country, and Non-OECD Member Economies. We also removed the comments showing the estimated value marked (E).

We used the *PHStat* add-in for *Excel 2013* to run a regression analysis on our data. We chose the Life Satisfaction indicator as the dependent variable, and the other 23 indicators as independent variables. We consider relevant any indicator with a p-value lower than 0.05 with a confidence level of 95 for the regression coefficients. In other words, each time we run regression, any indicator with a P-value over 0.05 is dropped and is not used in the next regression run. We also consider the Adjusted R square, since it explains the percentage of the dependent variable that can be explained by the independent ones.

5. COMPUTATIONAL/EXPERIMENTAL RESULTS

- First run of the regression: It appears that the Voter turnout indicator has the highest p-value (0.9230),

therefore, it is dropped. As shown below in **Figure 5.1**, the Adjusted R square is 0.8804, which means that about 88% of the Life satisfaction can be explained by the remaining indicators.

<i>Regression Statistics</i>	
Multiple R	0.9782
R Square	0.9568
Adjusted R Square	0.8804
Standard Error	0.3072
Observations	37

Figure 5.1: Regression Statistics on the first regression analysis

- Second run of the regression: It appears that the Time devoted to leisure and personal care indicator has the highest p-value (0.9011), therefore, it is dropped. The Adjusted R square increased slightly to 0.8889, which means that about 89% of the Life satisfaction can be explained by the remaining indicators.
- Third run of the regression: It appears that the Years in education indicator has the highest p-value (0.8538), therefore, it is dropped. The Adjusted R square increased slightly to 0.8962, which means that about 90% of the Life satisfaction can be explained by the remaining indicators.
- Fourth run of the regression: It appears that the Life expectancy indicator has the highest p-value (0.8544), therefore, it is dropped. The Adjusted R square increased slightly to 0.9024, which means that about 90% of the Life satisfaction can be explained by the remaining indicators.
- Fifth run of the regression: It appears that the Household Net Adjusted Disposable Income indicator has the highest p-value (0.5441), therefore, it is dropped. The Adjusted R square increased slightly to 0.9080, which means that about 90% of the Life satisfaction can be explained by the remaining indicators.
- Sixth run of the regression: It appears that the Job Security indicator has the highest p-value (0.5885), therefore, it is dropped. The Adjusted R square increased slightly to 0.9111, which means that about 91% of the Life satisfaction can be explained by the remaining indicators.
- Seven run of the regression: It appears that the Consultation on Rule-making indicator has the highest p-value (0.4743), therefore, it is dropped. The Adjusted R square increased slightly to 0.9144, which means that about 91% of the Life satisfaction can be explained by the remaining indicators.

- Eighth run of the regression: It appears that the Self-Reported Health indicator has the highest p-value (0.3833), therefore, it is dropped. The Adjusted R square increased slightly to 0.9164, which means that about 91% of the Life satisfaction can be explained by the remaining indicators.
- Ninth run of the regression: It appears that the Housing Expenditure indicator has the highest p-value (0.1448), therefore, it is dropped. The Adjusted R square increased slightly to 0.9172, which means that about 91% of the Life satisfaction can be explained by the remaining indicators.
- Tenth run of the regression: It appears that the Homicide Rate indicator has the highest p-value (0.1898), therefore, it is dropped. The Adjusted R square decreased slightly to 0.9123, which means that about 91% of the Life satisfaction can be explained by the remaining indicators.
- Eleventh run of the regression: It appears that no indicator has a p-value higher than 0.05, therefore, we kept all the remaining indicators. As shown below **Figure 5.2**, the Adjusted R square decreased slightly to 0.9091, which means that about 91% of the Life satisfaction can be explained by the remaining indicators.

<i>Regression Statistics</i>	
Multiple R	0.9705
R Square	0.9420
Adjusted R Square	0.9091
Standard Error	0.2678
Observations	37

Figure 5.2: Regression Statistics on the last regression analysis

After the Regression analysis was completed, we found out that the following indicators contribute more to Life Satisfaction: Dwelling without basic facilities, Rooms per person, Household net financial wealth, Employment rate, Long-term unemployment rate, Personal Earnings, Quality of support network, Educational attainment, Student Skills, Air pollution, Water quality, Assault rate, Employees working very long hours. **Figure 5.3** below shows the remaining indicators.

Here is our life satisfaction formula:

$$\text{Life Satisfaction} = 3.1647 - 0.1260 * (\text{Dwelling without basic facilities}) + 0.8333 * (\text{Rooms per person}) - 6.6 \times 10^{-6} * (\text{Household net financial wealth}) + 0.0495 * (\text{Employment Rate}) - 0.0714 * (\text{Long-term Unemployment rate}) + 1.8 \times 10^{-5} * (\text{Personal Earnings}) + 0.0396 * (\text{Quality of support network}) + 0.0151 * (\text{Education Attainment}) -$$

	Coefficient	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95%	Upper 95%
Intercept	3.1647	1.8362	1.7235	0.0982	-0.6337	6.9631	-0.6337	6.9631
Dwellings without basic facilities	-0.1260	0.0240	-5.2422	0.0000	-0.1757	-0.0763	-0.1757	-0.0763
Rooms per person	0.8333	0.2014	4.1382	0.0004	0.4167	1.2498	0.4167	1.2498
Household net financial wealth	0.0000	0.0000	-2.9244	0.0076	0.0000	0.0000	0.0000	0.0000
Employment rate	0.0495	0.0129	3.8464	0.0008	0.0229	0.0761	0.0229	0.0761
Long-term unemployment rate	-0.0714	0.0260	-2.7477	0.0115	-0.1252	-0.0177	-0.1252	-0.0177
Personal earnings	0.0000	0.0000	2.2937	0.0313	0.0000	0.0000	0.0000	0.0000
Quality of support network	0.0396	0.0122	3.2428	0.0036	0.0143	0.0649	0.0143	0.0649
Educational attainment	0.0151	0.0050	2.9994	0.0064	0.0047	0.0256	0.0047	0.0256
Student skills	-0.0096	0.0027	-3.5886	0.0016	-0.0152	-0.0041	-0.0152	-0.0041
Air pollution	0.0194	0.0075	2.6076	0.0157	0.0040	0.0349	0.0040	0.0349
Water quality	-0.0244	0.0089	-2.7326	0.0119	-0.0428	-0.0059	-0.0428	-0.0059
Assault rate	0.1325	0.0355	3.7282	0.0011	0.0590	0.2061	0.0590	0.2061
Employees working very long hours	0.0180	0.0087	2.0722	0.0496	0.0000	0.0359	0.0000	0.0359

Figure 5.3: Regression Statistics of the remaining indicators

$$0.0096 * (\text{Student Skills}) + 0.0194 * (\text{Air Pollution}) - 0.0244 * (\text{Water Quality}) + 0.1325 * (\text{Assault Rate}) + 0.0180 * (\text{Employees Working very long hours})$$

Table 5.1 below shows the remaining indicators that make the most impact in terms of a Better Life.

Table 5.1: The indicators that contribute the most to Life Satisfaction.

Housing		Jobs		Community		Education		Environment		Safety		Work-Life Balance
Dwellings without basic facilities	Rooms per person	Household net financial wealth	Employment rate	Long-term unemployment rate	Personal earnings	Quality of support network	Educational attainment	Student skills	Air pollution	Water quality	Assault rate	Employees working very long hours
1.1	2.3	39422	72	1.06	46585	93	74	514	13	93	2.1	14.23
1	1.6	48125	73	1.07	43837	95	82	498	27	95	3.4	8.61
1.9	2.3	78368	62	3.37	47276	91	71	507	21	84	6.6	4.41
0.2	2.5	63261	72	0.9	44017	94	89	522	15	90	1.3	3.96
9.4	1.3	19141	62	2.01	15438	85	72	439	46	79	6.9	16.42
0.9	1.4	17875	67	3.03	20645	87	92	496	16	81	2.8	7.14
0.4	2	39951	73	2.11	45642	96	77	500	15	95	3.9	2.06
8.6	1.6	7843	67	5.46	17498	89	89	523	9	80	5.5	3.59
0.6	1.9	20190	70	1.65	38976	93	84	529	15	95	2.4	3.7
0.5	1.6	47966	64	3.36	38625	91	72	439	12	85	5	0.71
0.9	1.8	49484	73	2.52	41782	93	86	514	16	94	3.6	5.6
0.5	1.2	14004	51	14.37	27434	98	67	488	27	66	3.7	5.65
4.8	1	13652	57	5.05	20514	87	82	486	15	77	3.6	2.92
0.4	1.6	43045	80	1.68	39433	96	71	486	18	97	2.7	13.73
0.2	2.1	28099	59	9.24	50853	95	73	518	13	84	2.6	4.17
3.8	1.1	56932	67	0.91	27577	89	83	474	21	66	6.4	18.77
0.5	1.4	54147	58	5.67	33571	91	56	489	21	80	4.7	3.7
6.4	1.8	85309	71	1.67	38039	90	93	538	24	86	1.4	22.62
4.2	1.4	26290	64	0.81	34056	77	81	637	30	78	2.1	27.13
0.7	2	57159	66	1.56	52542	88	77	487	12	81	4.3	3.18
4.2	1	10449	61	0.69	14653	74	56	417	30	68	12.8	28.77
0	2	71073	75	1.78	45362	92	72	522	30	94	4.9	0.59
0.2	2.3	7480	72	0.91	31394	96	74	511	11	89	2.2	13.07
0.3	2	9365	76	0.28	46618	93	82	498	16	96	3.3	3.1
3.5	1	10406	60	3.51	21140	89	89	520	33	77	1.4	7.58
0.9	1.6	29640	62	7.62	23419	85	35	488	18	87	5.7	9.31
1.1	1.2	9651	60	8.89	20428	88	91	469	13	82	3	6.48
0.4	1.4	18912	64	4.23	33040	93	84	497	26	90	3.9	5.72
0	1.9	23202	56	11.13	34747	92	54	490	24	75	4.2	5.95
0	1.7	63301	74	1.4	38789	91	87	484	10	97	6.1	1.14
0.1	1.9	100812	79	1.48	52307	94	86	515	20	95	4.2	7.3
12.7	1.1	3017	49	2.29	17460	79	32	482	35	60	5	43.29
0.3	1.9	60665	71	2.75	40649	94	77	505	13	92	1.8	12.27
0.1	2.3	132822	67	2.36	54214	90	89	494	18	87	1.5	11.44
2.1	1.6	42903	65	2.73	41010	89	75	497	20	84	3.9	8.82
6.7	1.4	6876	67	2.17	7909	86	41	486	18	67	7.8	10.74
15.1	0.9	3331	69	1.69	21311	84	94	475	15	44	3.8	0.17

As a result of our analysis, we found out that these 13 remaining indicators are the ones that contribute most to Life Satisfaction. We went back to interactive

visualization tool on the OECD website and created our own Better Life Index based on the results of the regression analysis.

The result is shown below in Figure 5.4:

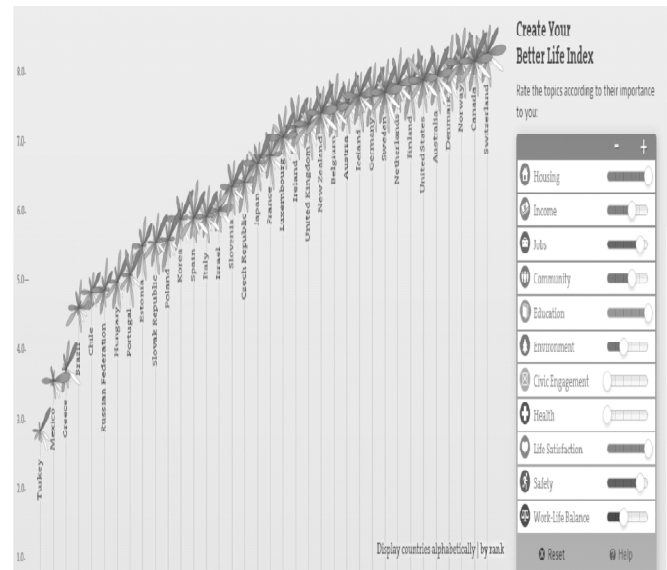


Figure 5.4: Ranked from lowest to highest in regards to the regression analysis

6. CONCLUSION

One may argue that numbers do not provide you with a complete outlook of a situation. However, it does get us closer to the truth. The major advantage of using data analysis is that human sentiment is put aside and the outcome is merely based on numbers. With the OECD BLI, the governing bodies in each country can engage their citizens in an interactive way and try to identify which aspects of society need to be improved in order to have a good life. In the past, countries have based their measure of citizen well-being on economic measurements such as the GDP. With the evolution in technology in recent years, there is no need for countries to limit their studies in those areas alone. This regression analysis has proven just that. Although money does not necessarily solve society's problems and cannot buy happiness, it is definitely an important means to it. We were quite shocked by the fact that it came out of our analysis that health and civic engagement were not among the contributing dimensions of a better life. We think that adding more dimensions and expanding the OECD BLI data collection process to more diverse countries can help better understand societies and what more people aspire for in their infinite pursuit of happiness. Nonetheless, despite the limited time that we were constrained by, we came to the conclusion that, people can live a

happier life, whether it is based on their financial security, having a safer place to live in, having a reliable support network, or having access to a good education. A good life can be lived based on these indicators and even more than the OECD data can capture.

7. FUTURE RESEARCH

Unfortunately, there is no broader set of studies on this specific subject, beyond what the OECD BLI provides us. All the relevant information is limited to the OECD resources. Nonetheless, the age of data analysis is just beginning. The ability to collect data today is much more accessible than ever before. It will not be long before more data sets containing new information about what makes a better life comes out. By using statistical and technical tools, this field of study can provide a great outcome for the future. We think including dimensions of management of natural resources, equity, justice, and gender/social inequalities (women and men and low and high socio-economic status), peace and security and religion, and including data from more countries will provide more datasets with greater challenges in the future. Also, as the OECD collects more data every year, we will be able to test the evolution of different countries and compare their life satisfaction index over time. That could help us find, with less subjectivity, what better contributes to a good life.

REFERENCES

- [1] Cukier J. (2011), Can data visualization help build democracy? *ACM Crossroads* 18 (2).
- [2] Decancq K. & Lugo M. A. (2013), Weights in multidimensional indices of wellbeing: An overview. *Econometric Reviews*, 32 (1). DOI:10.1080/07474938.2012.690641.
- [3] Foster, J., McGillivray M. & Seth S. (2013), Composite Indices: Rank Robustness, Statistical Association, and Redundancy. *Econometric Reviews*, 32 (1). DOI:10.1080/07474938.2012.690647.
- [4] Hoskins P. & May D. (2014), OECD's Better Life Index for Canada and the provinces: Challenges and Results. *CARE. Department of Economics, Memorial University*.
- [5] Ra F. (2011), OECD's Better Life Index (and other well-being measures). *CreateSpace Independent Publishing Platform*.
- [6] Kendall-Bilicki S. (2012), Beyond: Better Ways to Measure Better Lives, *OECD*. <http://www.oecdbetterlifeindex.org/blog/the-better-life-index.htm>
- [7] Kennedy Robert F. (1968), Remarks at University of Kansas. <http://www.jfklibrary.org/Research/Research-Aids/Ready-Reference/RFK-Speeches/Remarks-of-Robert-F-Kennedy-at-the-University-of-Kansas-March-18-1968.aspx>
- [8] OECD (2013), *How's Life? 2013: Measuring Well-being*, OECD Publishing. <http://dx.doi.org/10.1787/9789264201392-en>
- [9] OECD (2015), *Frequently Asked Questions (FAQs)*: <http://www.oecdbetterlifeindex.org/about/better-life-initiative/>
- [10] OECD (2014), *OECD.StatExtract*. <http://stats.oecd.org/Index.aspx?DataSetCode=BLI>
- [11] The OECD Better Life Index (2013), <http://blog.happybarometer.com/en/posts/445-the-oecd-better-life-index-2013>

