Turkish Case: Well-Being Index for Provinces

Seminar on Leading, Composite and Sentiment Indicators
Geneva, 6-7 July 2017

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TurkStat
Improvements of Well-Being Studies

differ from:

- Development studies
- Livability studies
- Competitiveness studies
- Welfare studies

Utility Approach
Characterising measure: GDP

Capabilities Approach
Characterising measure: HDI (including fair allocations approach)

S.S.F. Commission Approach
Characterising measure: OECD Better Life Index
Outline

• Purpose and the way of work
• Workflow of the study
• Output and lessons learned
Purpose

Ultimate goal
✓ to serve for better regional policies to increase the well-being of people where they live

Purpose of the study
✓ to build a system of well-being indicators for Turkish provinces (81)
✓ to improve availability of sub-national indicators and capacity to monitor well-being over time
The way of work

Collaboration with OECD

Meetings and workshop with:
- Related ministries
- Academia
Workflow of the Study
Timeline

1- Start of the project - found incomplete without subjective measures

2- Life Satisfaction Survey on Province Level

3- Setting a core team and continue to project

4- Literature review, Defining the broad indicators pool

5- Discussion and decision process of conceptual framework and methodology

6- Deciding on the indicator list

Publication

Today

2012 | 2013 | 2014 | 2015 | 2016 | 2017
 TurkStat Working Group and Our Team

- Working Group in TurkStat
- Executives
- Group Leader
- Four TurkStat expert
Life Satisfaction Survey

**Period – Frequency:**
Annual survey for whole Turkey since 2003, for a regional well being index, together with necessary additions the survey was conducted on province level for the first time in 2013;

- 125 720 sample households in 2013,
- 22 questions for households, 55 for 18+ individuals,
- province level survey in every three years

**Purpose:** to keep track of individuals
- General perception of happiness,
- Social values,
- Satisfaction from the public services and satisfaction in general on fundamental life spaces,
- Tracing the progress of this level of satisfaction through time.
Through a New Study

- Literature review
- Defining broad indicator pool
- Deciding on conceptual framework and methodology
- Determining the dimensions and indicators
Literature Search

- **International Organizations**
  - OECD
  - SSF Commission
  - Eurostat
  - MERCER
  - NEF
  - EIU
  - GALLUP

- **Country Studies**
  - Australia
  - Austria
  - Canada
  - Italy
  - Japan
  - The Netherlands
  - New Zealand
  - United Kingdom
  - Portugal

- **Turkish Practices**
  - Ministry of Development
  - EDAM
  - URAK
  - Mastercard Turkey
  - İşbank
  - CNBC-E Turkey
  - İstanbul Trade Center
Creating Broad Objective Indicator Pool

- Approximately 500 province level indicators under possible life domains
- Checking quality of indicators
- Restricting the large pool to a middle size
- Documenting pros and cons of each indicator
- Discussing “ideal” indicators through the filter of well-being studies
Developing Subjective Indicators

Using province level Life Satisfaction Survey;
✓ Calculating possible indicators for dimensions of well-Being
✓ Comparing subjective indicators with objective ones
✓ Discussing the balance of objective/subjective indicators
Deciding on methodological details

| Comparing composite index vs. scoreboard | • composite index  
|                                         | • scoreboard |
| Normalization options                  | • Min-max  
|                                         | • Z scoring  
|                                         | • Ranking |
| Weighting options                      | • Equally weighted method  
|                                         | • Hierarchical equally weighted method  
|                                         | • Principal component analysis  
|                                         | • Budget allocation processes |
Deciding on Conceptual Framework

- Outcome focused
- Individual / household focused
- Measuring well-being where people experience it
- Combined use of subjective evaluations & objective conditions

- Using limited number of indicators per domain
- Considering sub domains of well-being as equivalent

Conceptual framework

Strategic choices
Indicator selection criteria

**Data quality**
- reliable
- robust
- accurate
- up to date
- time series...

**Conceptual framework**
- outcome oriented
- compatible to main goal
- clear direction
- improvable with policy changes
- reflection of distinction between provinces
- reflection of well-being of people residing in the province
Further Methodological Work

- Correlation analysis, sensitivity analysis, chi square analysis and regression analysis were used in different steps of indicator selection.
- Due to the challenges faced on the process of obtaining province level indicators, some trade offs became necessary.
- Volatility of indicators and dimension indices were compared.
- Objective and subjective indices were calculated and compared.
- The quality of life for each domain and every province were compared.
- 81 provinces of Turkey according to the index were compared, evaluated and ranked.
Output and Lessons Learned
## 11 Dimensions and 41 Indicators

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Total</th>
<th>Objective</th>
<th>Subjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Work life</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Income and wealth</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Health</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Education</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Environment</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Safety</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Civic engagement</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Access to infrastructure services</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Social life</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>26</td>
<td>15</td>
</tr>
</tbody>
</table>
Dissemination

**Well-Being Index for Provinces, 2015**

Studies conducted in recent years on measuring social progress, which is a concept covering other life dimensions besides the economic aspect, has been intensified. In this new measure that brings individuals into focus, objective criteria are used along with individuals’ subjective perceptions.

With the first time introduction of well-being index for provinces, Turkish Statistical Institute conducted a study on the province level, aiming to measure, compare and keep track in time of the well-being of individuals and households on distinct life dimensions, using objective and subjective criteria. Purpose of this study is to develop an indicator system to be a basis for monitoring the well-being of people with all aspects in provinces.

Well-being index for provinces covers 11 dimensions of life, housing, work life, income and wealth, health, education, environment, safety, civic engagement, access to infrastructure services, life satisfaction and presents these dimensions which are represented with 41 indicators, in a single composite index. The index value is measured between 0 and 1, and values approximating to 1 state a better level of well-being. Detailed information is included in the annex of this bulletin.

**Isparta took the first place in well-being index**

Isparta with the index value 0.6745, took the first place in well being index. Provinces following Isparta are Sakarya with 0.6737 and Bolu with 0.6553 respectively. Last province with the lowest well-being index value 0.2765 is Muş. Provinces that follow Muş are Mardin with 0.2936 and Ağrı with 0.2975.

Well-being index for provinces, 2015
### Table-1: Rankings and Index Values

<table>
<thead>
<tr>
<th>Province</th>
<th>Rank</th>
<th>Overall Index</th>
<th>Housing Index</th>
<th>Work Life Index</th>
<th>Income and Wealth Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isparta</td>
<td>1</td>
<td>0.6745</td>
<td>4</td>
<td>0.9059</td>
<td>13</td>
</tr>
<tr>
<td>Sakarya</td>
<td>2</td>
<td>0.6737</td>
<td>1</td>
<td>0.9369</td>
<td>28</td>
</tr>
<tr>
<td>Bolu</td>
<td>3</td>
<td>0.6553</td>
<td>3</td>
<td>0.9247</td>
<td>26</td>
</tr>
<tr>
<td>Kütahya</td>
<td>4</td>
<td>0.6520</td>
<td>15</td>
<td>0.8474</td>
<td>3</td>
</tr>
<tr>
<td>İstanbul</td>
<td>5</td>
<td>0.6496</td>
<td>28</td>
<td>0.8011</td>
<td>33</td>
</tr>
<tr>
<td>Uşak</td>
<td>6</td>
<td>0.6485</td>
<td>20</td>
<td>0.8227</td>
<td>4</td>
</tr>
<tr>
<td>Balıkesir</td>
<td>7</td>
<td>0.6316</td>
<td>27</td>
<td>0.8087</td>
<td>24</td>
</tr>
<tr>
<td>Artvin</td>
<td>8</td>
<td>0.6315</td>
<td>17</td>
<td>0.8432</td>
<td>8</td>
</tr>
<tr>
<td>Kirikkale</td>
<td>9</td>
<td>0.6313</td>
<td>14</td>
<td>0.8518</td>
<td>22</td>
</tr>
<tr>
<td>Afyonkarahisar</td>
<td>10</td>
<td>0.6275</td>
<td>33</td>
<td>0.7864</td>
<td>15</td>
</tr>
</tbody>
</table>

### Table-2: Indicator Values

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of rooms per person</th>
<th>Toilet presence in dwellings (%)</th>
<th>Percentage of households having problems with quality of dwellings (%)</th>
<th>Employment rate (%)</th>
<th>Unemployment rate (%)</th>
<th>Average daily earnings (TRY)</th>
<th>Job satisfaction rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adana</td>
<td>1.2</td>
<td>86.3</td>
<td>22.7</td>
<td>43.3</td>
<td>13.2</td>
<td>59.1</td>
<td>73.3</td>
</tr>
<tr>
<td>Adıyaman</td>
<td>0.9</td>
<td>77.1</td>
<td>41.1</td>
<td>39.2</td>
<td>9.1</td>
<td>53.2</td>
<td>64.3</td>
</tr>
<tr>
<td>Afyonkarahisar</td>
<td>1.4</td>
<td>90.2</td>
<td>12.9</td>
<td>51.1</td>
<td>5.6</td>
<td>53.9</td>
<td>85.3</td>
</tr>
<tr>
<td>Ağrı</td>
<td>0.8</td>
<td>64.1</td>
<td>40.5</td>
<td>53.2</td>
<td>6.8</td>
<td>56.1</td>
<td>64.0</td>
</tr>
<tr>
<td>Amasya</td>
<td>1.4</td>
<td>95.0</td>
<td>16.9</td>
<td>47.4</td>
<td>6.6</td>
<td>53.8</td>
<td>88.7</td>
</tr>
<tr>
<td>Ankara</td>
<td>1.6</td>
<td>98.7</td>
<td>15.8</td>
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<tr>
<td>Antalya</td>
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<td>96.7</td>
<td>14.9</td>
<td>52.9</td>
<td>7.9</td>
<td>59.5</td>
<td>78.6</td>
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<tr>
<td>Artvin</td>
<td>1.6</td>
<td>94.2</td>
<td>19.7</td>
<td>47.1</td>
<td>7.1</td>
<td>66.5</td>
<td>84.9</td>
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<tr>
<td>Aydın</td>
<td>1.5</td>
<td>78.6</td>
<td>18.0</td>
<td>51.4</td>
<td>6.9</td>
<td>53.9</td>
<td>81.6</td>
</tr>
<tr>
<td>Balıkesir</td>
<td>1.6</td>
<td>88.6</td>
<td>16.7</td>
<td>44.4</td>
<td>6.0</td>
<td>56.0</td>
<td>86.9</td>
</tr>
</tbody>
</table>
Dissemination

1. gruba dahil iller
2. gruba dahil iller
3. gruba dahil iller
4. gruba dahil iller
5. gruba dahil iller

Not: Türkiye'nin 81 ili dahil skor değerlerine göre yukarıdan aşağıya 5 gruba bölünmüştür. Birinci, ikinci, üçüncü ve dördüncü grup 16 ilden, beşinci grup 17 ilden oluşmaktadır.

Ekonomik ve Sosyal Göstergeler Daire Başkanlığı
Göstergeler Grubu

13.06.2017  22/26
Winners by Dimensions

- Different winners for dimensions
- Isparta with the index value 0.6745, took the first place
- Kastamonu is first in environment..
- İstanbul is first province only in 3 dimensions (income and wealth, social life and access to infrastructure)
Main challenges

- Deciding on coverage of dimensions
- Data constraints
- Developing new indicators
- Absence of time series data for province level subjective indicators
- Optimal use of subjective indicators
- The term “subjective” itself!
Lessons Learned

- Reflections of data users
  - Media
  - Ministries
  - Local administrations; expectations & perceptions
    - Negative
    - Positive
- Lack of interactive dissemination platform
Thank You