



**A Proposal for the Treatment of the Social Transfers in Kind (STIK) in the Household Sector of Mexico**

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## **“Proposal for the Treatment of the Social Transfers in Kind (STiK) in the Household Sector of Mexico”**

### **Abstract**

Currently, the need of information expressed by users and researchers is more focused to increase periodicity, timeliness and to be more orientated on specific matters in the economies that represent grey zones for the making of public decisions. On the other hand it is also required to attend those issues that explain and allow the understanding of social inequality.

Answering to these issues, during the last years the statistical environment has been working in the attention of items signaled by the report of the Commission on the Measurement of Economic Performance and Social Progress, which stresses the importance of a greater focus on the household perspective in order to provide better measurements of people’s well being, and the G-20 Data Gaps Initiative, which aims at closing information gaps highlighted by the economic and financial crisis also made a number of recommendations encouraging the compilation of more detailed household measurements.

In this context, the Social Transfers in Kind emerge as a topic of discussion in order to understand better their real effect on distributional analysis. This paper describes the method and obtained results for an experimental exercise to distribute STiK on Education and Health, using micro, macro and administrative data from Mexico for the year 2012, in the context of works done on this matter by the Expert Groups launched by the OECD.

### **Key Words**

Household sector, education, health care, STiK

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## **Background**

The need of information expressed by users and researchers is more focused to increase periodicity, timeliness and to be more orientated on specific matters in the economies that represent grey zones for the making of public decisions. On the other hand it is also required to attend those issues that explain and allow the understanding of social inequality.

In this context during the last years the statistical environment has been working in the attention of items signaled by the report of the Commission on the Measurement of Economic Performance and Social Progress, the “Stiglitz-Sen-Fitoussi Commission” (Stiglitz, 2009), which stressed the importance of a greater focus on the household perspective in order to provide better measurements of people’s well being: *.....properly defined, household income and consumption should also reflect in-kind services provided by government, such as subsidized health care and educational services. A major effort of statistical reconciliation will also be required to understand why certain measurements such as household income can move differently depending on the underlying statistical source.*

Likewise, the G-20 Data Gaps Initiative (IMF & FSB, 2009) which aims at closing information gaps highlighted by the economic and financial crisis also made a number of recommendations encouraging the compilation of more detailed household measurements, in this manner: *.....statistical experts to seek to compile distributional information (such as ranges and quartile information) alongside added figures, wherever this is relevant. The IAG is encouraged to promote production and dissemination of these data in a frequent and timely manner. The OECD is encouraged to continue in its efforts to link national accounts data with distributional information.*

In 2011 the OECD and Eurostat launched a joint Expert Group, its goal was to explore whether it was possible to devise an internationally comparable methodology to produce measurements of disparities across different household groups that were consistent with national accounts concepts and totals using existing micro data sources. The results of this

Expert Group were integrated in two documents (Fesseau M. &, 2013) and (Fesseau & Wolff, 2013) containing the methodological and numerical achievements.

Recently, the OECD launched a second Expert Group to extend this task towards producing household distributional information on income and consumption for a more recent year. The National statistical office of Mexico has participated in both Expert Groups. The results presented in this document come from the efforts developed with this participation and particularly with the current progress based on the Household survey from 2012, which explain that the results are of experimental character and some of them still in progress.

Households census and surveys, and administrative data, provide measurements of the income distribution, consumption and wealth, they are called micro data (Dupriez, 2010, pág. 3)<sup>1</sup>. For many reasons regarding to concepts, definitions and statistical practices, micro data can yield results that diverge from macro aggregates. This has as consequence that measurements created using these data sources may not be consistent with the figures in national accounts.

The importance than STiK take on distributional analysis relies on the fact that the statistical techniques used by the micro data do not include them, because of the manner the STiK arrives to households from the government or the NPISH. However, the micro data offer the possibility to distribute them and to change the approach from the supplier to the receiver.

In the next sections of this document, it will be presented the context of the STiK. Secondly the development of an experimental exercise with micro, macro and administrative data from Mexico for the year 2012, the third part presents some of the obtained results for the experimental exercise, ending with some conclusions and follow-up work.

## **1 Social Transfers in kind (STiK)**

The Social transfers in kind consist of goods and services provided to households by government and NPISHs, either free or at prices that are not economically significant [SNA 2008, §8.141]. The sorts of goods or services included are health care and education, both provided by the government (as non-market producer), and others, which can be all STiK provided by NPISHs.

Regarding the importance of distributing STiK for international comparisons, the Canberra Handbook states: *It is important to account for the effect of STIK on the distribution of income when undertaking comparisons within and across countries* (UNECE, 2011, pág. 43). Taking into consideration this context is statistically convenient to make efforts in this topic.

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<sup>1</sup> When statistical agencies or other data producers conduct surveys or censuses or collect administrative data, they gather information from each unit of observation. Such a unit can be a household, a person, a firm or enterprise, an agricultural holding, a school, a health facility, or other. In the context of this guide, *microdata* are the electronic data files containing the information about each unit of observation. Microdata are thus opposed to *macrodata* or *aggregated data*, which provide a summarised version of this information in the form of means, ratios, frequencies or other summary statistics. Pg 3

The method followed to measure the output of the non market producers, through the total production cost incurred, allow us to obtain a more accurate measurement of the STiK by the expense side of the government and NPISHs. In a common treatment it is feasible to consign this amount directly as STiK in the use of disposable income account. The fact is that attending the logical of the measurement the approach is from the expenditure side, which have a different sense from the perspective and valuation of the households, the receivers of the benefits.

The public expenditure on education and health care (produced directly or bought to suppliers) is recorded in the SNA as STiK inside the redistribution of income in kind account, paid by the government sector and received by the households sector. The principle lying on this is the understanding that the government spends these resources on behalf of society.

The two main approaches for allocating the value of STiK covering health care needs are:

- The actual consumption approach which is based on data on the effective use of health care services by individuals. Based on this approach, every individual who actually uses health care services receives a public benefit;
- The insurance approach which allocates to each individual the average health care cost of a person with the same socio-demographic profile (age, sex, etc...). In this approach, every individual is assumed to receive a public benefit determined by the average public spending of his/her group, irrespective of whether or not they have used these services.

Attending to practical and conceptual reasons the insurance approach is the preferred method to analyze the STiK, and this is the one used in the exercise presented in this document.

## **2 Experimental exercise with micro, macro and administrative data of Mexico**

In Mexico the STiK granted by the government represents 5.4% of GDP, in average figures for the series 2003-2012. The expense on educational services participates with 3.4% and the rest 2.0% is on health care services. The exercise presented here on distributional approach will be based on data from the year 2012; the data sources used were macro data, micro data and administrative data.

In the context of the Experts Groups launched to generate distributional information, the previous and current works on households for Mexico have let to move closer the micro data from the Households survey to the national accounts aggregates, the several tasks of reconciliation and understanding of the conceptual framework underlying on each project is an obligated task in the statistical office. There are many items in the accounts for the Households sectors deserving research and attention, the sub-sectorization proposed by the 2008 SNA is a clear example of the kind of statistical expectations required for the sector in question (United Nations, 2009)<sup>2</sup>.

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<sup>2</sup> § 4.160 to 4.165.

Furthermore, the need of more relevant data that could help to understand and explain better the welfare in a material sense is desirable, as it was stated in the first paragraphs.

This experimental exercise to distribute the STiK for Mexico emerged from the activities of the former Expert Group launched by OCDE, and it has been updated with the available information from the last Household survey, national accounts aggregates and official administrative data, all the set of sources for 2012. This work is part of a project in progress that will allow us to improve specific items for the Household sector and in certain moment generate distributional statistics for it.

The usage of demographic variables, as in the case of number of people receiving education or health care, can be of less complexity than the usage of monetary and in kind registers. In this case it is used the expansion factor defined by the proper survey to reach the population levels reported in the exercise presented here.

Along this document there will be three types of sources: 'macro sources', namely national accounts totals, 'micro sources', namely household survey that provides distributional information at the household level; and 'administrative sources', namely records coming from official statistics.

The arrangement of the data incorporated to the exercise followed the next sequence:

- A. Application of the criterion EDI to the survey in order to have the sample of households organized by quintiles.
- B. Identification inside the survey questionnaires the variables regarded to number of people assisting in public schools, by educational level, and receiving health care services from public institutions, by level of attention.
- C. Analysis of administrative data from sectorial statistics on education and health.
- D. Applying the distributional breakdown to the national accounts aggregates using proxis of per capita cost.

Each step is described in the next lines

- A. Application of the criterion EDI to the survey in order to have the sample of households organized by quintiles.

**\* Definition of the micro cash disposable income**

The households were grouped by quintiles following the agreed method from the former Expert Group which considers the Equivalized Disposable Income (EDI).

The income classification Equivalized Disposable Income (EDI) is based on a classification of households according to a cash or near cash disposable income concept which excludes the net value of owner-occupied housing services, Social Transfers in Kind, imputed property income such as investment income earned by insurance policy holders, and financial intermediation services indirectly measured (FISIM). These items were excluded to be closer to users' perception and because they may not be available at the micro level. As a consequence, the income variable used to classify households is not fully consistent with national accounts definitions (Fesseau M. &, 2013).

As far as it was possible, variables used in building up the income classification follow the definitions adopted by the “Canberra Group on household income statistics”<sup>3</sup> that are reminded in Annex 1.

– Equivalized household disposable income quintile (EDI): Households are classified according to the level of their equivalized disposable income. The Oxford-modified equivalence scale (also called the OECD-modified scale) is used to equivalize the disposable income. This scale assigns a value of 1 to the household head, of 0.5 to each additional adult member – aged 14 or over - and of 0.3 to each child – below 14. Households were ranked according to the value of the equivalized disposable income and allocated to five equal groups (quintiles), each of them containing 20% of all households (Fesseau M. &, 2013, pág. 11).

**\* Breakdown by Household groups**

In Mexico the microdata source is the Household Incomes and Expenditures National Survey (ENIGH, acronym in Spanish). This survey is gathered every two years, it is carried out during an irregular quarter and the totals are matched with population data coming from the national institution in charge of official figures in this matter<sup>4</sup>. More detail on this statistics is shown in the next Box 1 (INEGI, 2013, pág. 1)<sup>5</sup>.

**Box 1: 2012 Household Incomes and Expenditures National Survey of Mexico**

The objective of the ENIGH-2012 is to get statistical data on distribution, quantity and structure of the income and expenditure of the households, likewise the economical activities developed by the household members. The target population is the households located on the national territory. Regarding the geographic coverage, the survey is designed to give results at national level, with dimensions urban and rural. The framework of the survey is probabilistic. For the selection of the sample it was used the National inventory of dwellings 2002 elaborated by INEGI, and built up from the cartographic and demographic data obtained from the XII General Census of Population and Dwelling from the year 2000. 2012 ENIGH took place from August 27 to November 24, 2012, and the national sample is of 10 062 selected dwellings.

The breakdown by quintiles was done with the micro data for the year 2012. The original data is expanded using the expansion factors from the survey, in this step of the task is necessary to review the coefficient of variation according to specific levels of acceptance<sup>6</sup> from the survey. The more you breakdown the data, the decreasing of robustness may happen, since the expansion is done with population criterion, it is necessary to evaluate the quality of the expanded results.

<sup>3</sup> [http://www.unece.org/fileadmin/DAM/stats/groups/cgh/Canbera\\_Handbook\\_2011\\_WEB.pdf](http://www.unece.org/fileadmin/DAM/stats/groups/cgh/Canbera_Handbook_2011_WEB.pdf)

<sup>4</sup> Consejo Nacional de Población.

<sup>5</sup> Free translation.

<sup>6</sup> The guides and metadata from the proper survey provides three levels of acceptance for the coefficient of variation: Good: 0-15%, Acceptable: 15-25%, and With reserves: more than 25%.



- B. Identification inside the survey questionnaires the variables regarded to number of people assisting in public schools, by educational level, and receiving health care services from public institutions, by level of attention.

In the exercise elaborated for the Expert Group prior to the classification of households at the micro level these micro variables used for the classification purpose are benchmarked to national accounts totals. For the exercise presented in this document and since we are working with information about the number of people receiving education and health care from the public institutions, the expansion was done by an expansion factor (population approaching) defined by the proper survey.

In Annex 2 were incorporated the questions from the Households survey used for the identification of the number of people receiving education and health care from public institutions.

The data on people receiving education and health care from public institutions, taken from the Households survey was expanded to national level, immediately arranged according with the educational levels or type of health care service reported in the governmental expenditure. These data are presented in Annex 3 (Tables 1 and 3).

- C. Analysis of administrative data from sectorial statistics on education and health.

There are official statistics for the Educational National system and the Health system, compiled with information coming from several institutional units operating in each sector, the data is consistent and refers long series.

Each statistic was organized with the criteria of level of education or type of health care as is reported in the Households survey.

These results were confronted with the results from the survey, previously expanded with population criteria. With both sets of data, it was defined the adjustment factor for the survey (coverage ratio) indicated on the extreme right of Table 2 and 4 (Annex 3). The people receiving education or health care through public institutions was defined applying the adjustment factor to the level of people by quintiles in the same proportion<sup>7</sup>. These results are presented in Table 3 and 5 (Annex 3). Annex 4 incorporates the original official source of data

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<sup>7</sup> Up to now there are no more elements to stratify the adjustment factor with other quantitative criteria.

- D. Applying the distributional breakdown to the national accounts aggregates using proxis of per capita cost.

From the national accounts the figures of STiK in 2012 are taken, with a disclosure by level of education and type of health care service<sup>8</sup>. With these values was defined a proxy for per capita cost for the provided services. The cost was applied by type of service for the breakdown of STiK, education and health care, by quintile. These results are shown in Annex 4.

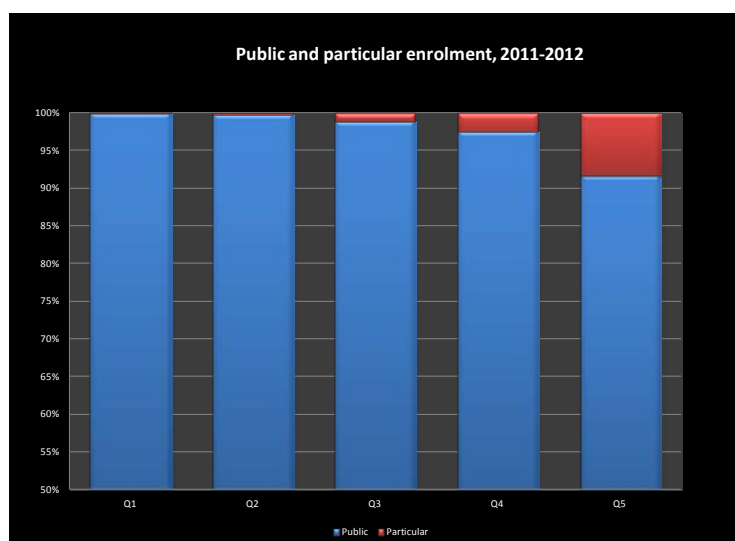
### 3 Obtained results for the experimental exercise

The figures on education from the household survey present high consistency with the one coming from the administrative data source. In the case of health care more work of reconciliation need to be done to match the data and incorporate the results for distributional analysis.

In the case of the health care services, the analysis lead us to different conclusions, based on the type of questions included in the questionnaire of the Household survey, in combination with the information from the administrative data, the interpretation is that the obtained ratio is the average number of times the people go to receive health care services.

In Mexico the education financed with public budget attends an amount of people significantly high that the one financed with private or social resources, the survey gathers this disclosure and the analysis by quintiles can be done. The next Graph 1 shows this situation.

Graph 1



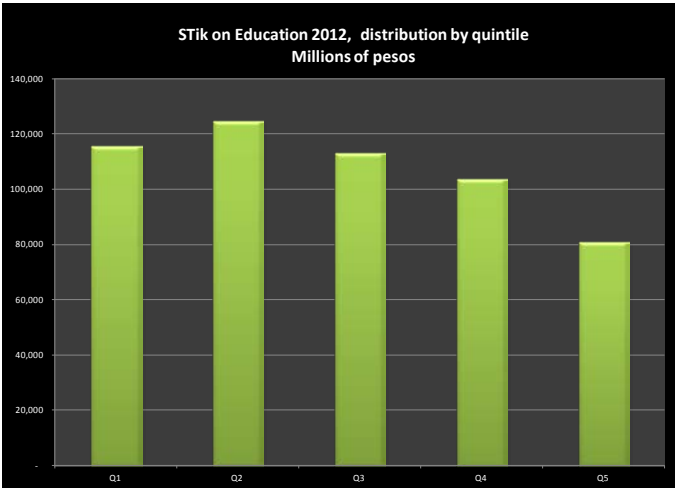
Source: prepared by author with data from ENIGH 2012.

<sup>8</sup> (INEGI, 2014) In the North American Industry Classification System there is a disclosure for the sector education and health care.

In the case of health care it is the same method with a difference since the services could be granted inside and outside the social security, in Mexico a great part of the people is being attended outside social security through public institutions offering health services, not social protection. The cost of these services is different since the financing of the scheme is mainly by public resources without any social contribution entering to it.

The obtained figures for 2012 on education indicate that the STiK are not proportionally distributed along the quintiles; the Q2 is the one receiving more benefits in kind, the Q5 receives the lower proportions of STiK on education. It cannot be considered as significant evidence regarding the impact of this STiK as a mean of redistribution. For public and social politics it is something to take into consideration, more analysis has to be done in terms of the level of education by quintile. The next Graph 2 shows the STiK on education by quintile.

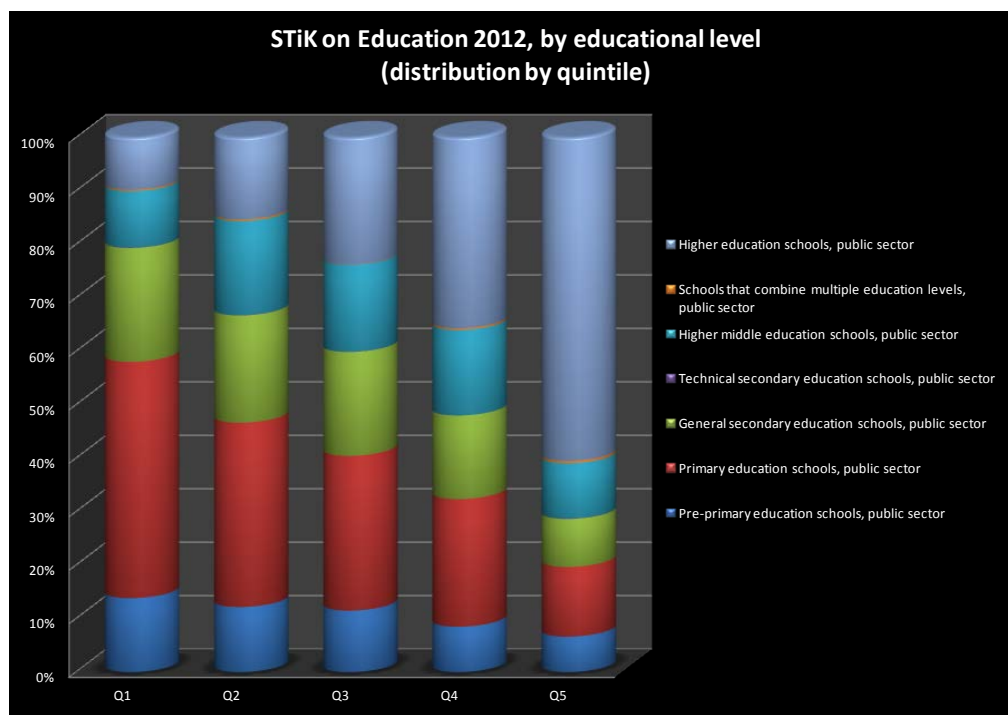
Graph 2



Source: prepared by author with data from ENIGH 2012.

The analysis on STiK of education shows the distribution by level inside each quintile, the quintiles with high levels of income show more significant figures for higher educational levels, as college and masters degree, while the quintiles with lower levels of income use the public education more intensively since the first educational levels. The next Graph 3 shows these results.

Graph 3

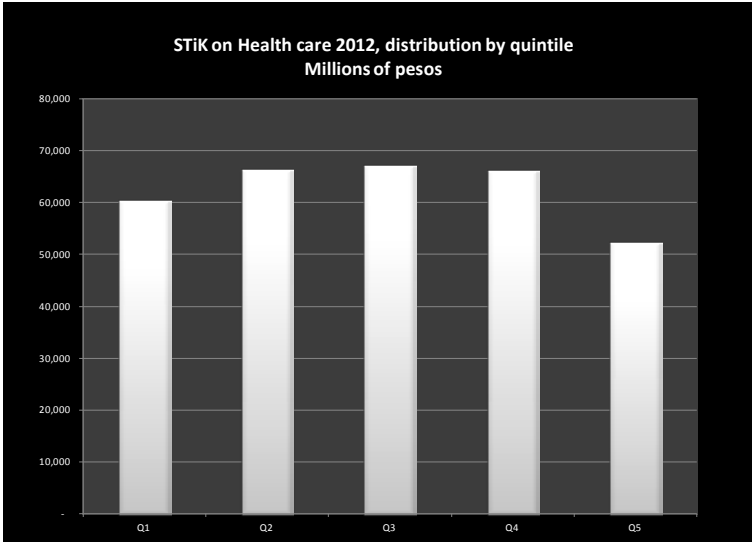


Source: prepared by author with data from ENIGH 2012.

The average cost, according with educational level or type of health care, for any person in any quintile is the same. So, the distinction is the usage done for the services; which is implicit in the quantitative data from the household survey. A matter of culture can be implicit; the people in the highest levels of income use the education and health care services attending criteria of prevention or better expectations of life. On the other hand, the people with the lowest level of income could face problems in having access to the health care services because they are attended in public institutions outside the social security system.

The distribution for STiK on Health care for 2012 is not proportional to the distribution by level of income; in this case the Q3 is receiving more benefits in kind than the others. There are several explanations behind these results, one is that the services provided by institutions belonging to the social security can be more expensive that the services provided by institutions outside this scheme. The next Graph 4 shows the distribution of STiK on Health care.

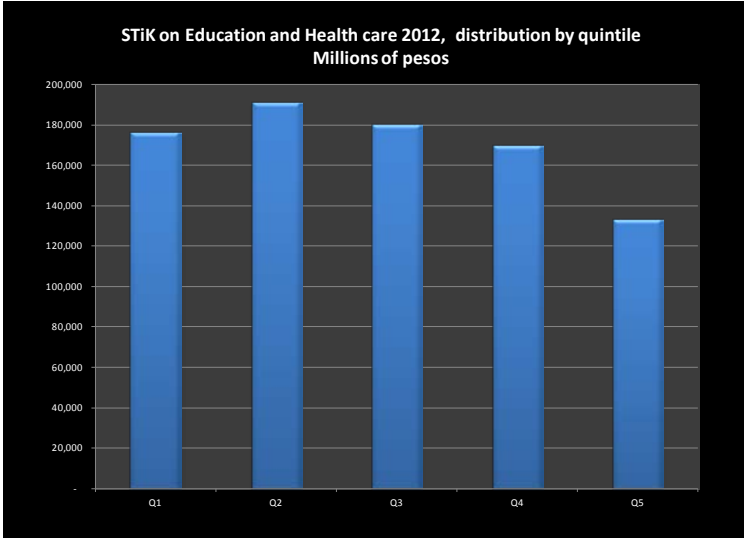
Graph 4



Source: prepared by author with data from ENIGH 2012.

The last Graph 5 shows the Total STiK by quintile. The distribution of STiK along the households with different level of incomes, using the EDI technique, shows that in Mexico during 2012 the Q2 was the segment more benefited through the public expenditure, something that need to be evaluated with more references and measurements for a series of time.

Graph 5



Source: prepared by author with data from ENIGH 2012

## 4 Conclusions

As a general conclusion, with all the elements incorporated in this experimental exercise, the Q2 is the segment receiving the largest amount of benefits in the form of STiK, secondly is the Q3, the quintile with the lowest level of incomes (Q1) is receiving benefits in third place. According to the empiric evidence behind the distributional exercises, the quintile with the highest level of income receives the lowest level of STiK.

Finally, to say more about trends, it is needed to construct a series of data, even when it could be a pattern in the usage of public individual services; it is more realistic to study more years. One year could lead us to easy conclusions not deep enough. The continuity of these tasks on distributional measurements is important not only for STiKS, this is because the works in the context of the Expert Groups stated are important at this moment.

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## Appendix



## Annex 1 Micro cash disposable income, definition

**1 Wages and salaries** It consists of payments, in cash or in kind, received by individuals as results of their involvement in paid jobs. It includes direct wages and salaries for time worked and work done, cash bonuses and gratuities, commissions and tips, directors' fees, profit-sharing bonuses and other forms of profit related pay, remuneration for time not worked such as for annual leave, holidays or other paid leave, share entitlements, free or subsidized goods and services from an employer. It also includes severance and termination pay. It excludes social insurance contributions made by employers to secure social benefits for their employees.

**2 Income from self-employment** Income from self-employment is income received by individuals as a result of their involvement in self-employment jobs. Net income from self-employment includes the profit or loss that accrues to owners of, or partners in, unincorporated enterprises who work in these enterprises. The basis for the measurement of income from self-employment in household income statistics is the concept of 'net' income, that is, the value of gross output less operating costs (including interest and dividends paid) and after adjustment for depreciation of assets used in production. It excludes profits or losses from the capital investment of partners who do not work in these enterprises ('silent' partners) which are included in property income. It includes the estimated value of goods and services produced for barter, as well as goods produced for own consumption, less expenses.

### **3 Property income (net, received minus paid)**

Property income is defined as receipts that arise from the ownership of assets (return for use of assets) provided to others for their use. They comprise returns, usually monetary, from financial assets (interest, dividends), from non-financial assets (rent) and from royalties (return for services of patented or copyrighted material).

- *Interest* receipts are payments received from accounts with banks, building societies, credit unions and other financial institutions, certificates of deposit, government bonds/loans, securities, debentures and loans to non-household members.

- *Dividends* are receipts from investment in an enterprise in which the investor does not work. This includes 'silent' partners. Pensions and annuities in the form of dividends from voluntary private insurance schemes are also included. Dividends should be recorded net of any expenses incurred in earning them, including interest paid. It excludes withdrawals of income from a quasi-corporation that are treated as income from self-employment.

- *Rents* are payments received for the use of both unproduced assets (i.e. natural resources), such as land, and for produced assets, such as houses. Rents should be recorded net of any expenses incurred in earning them, including interest paid.

- *Royalties* are receipts arising from the return for services of patented or copyrighted material, e.g. receipts from writings, right to make use of inventions, etc.

### **4 Current transfers received**

Transfers are receipts for which the recipient does not provide anything to the donor in direct return for the receipts. Transfers can consist of cash (in the monetary sense), of goods, or of services. Transfers may be made between households, between households and government, or between households and charities, both within or outside the country. The main motivation is to redistribute income either by government (e.g. pensions) or privately (e.g. child support). Current transfers received consist of all transfers that are not transfers of capital.

**(a) Social security pensions / schemes** - Social security pensions, insurance benefits and allowances generated from government sponsored social insurance schemes (compulsory/legal schemes) such as pensions (including military and overseas pensions), unemployment and sickness benefits.

**(b) Pensions and other insurance benefits** - Pensions and other insurance benefits from employer sponsored social insurance schemes and private funded schemes not covered by social security legislation (both funded and unfunded). Pensions received from contributory or private funded schemes may represent a running down of the household's assets where the underlying capital is consumed. They are, however, included as income as they are considered as income by households, especially retired households, and are used for consumption.

**(c) Social assistance benefits** - Social assistance benefits from governments (universal or means-tested) which provide the same benefits as social security schemes, but which are not provided for under such schemes.

**(d) Current transfers from non-profit institutions** - Current transfers from non-profit institutions (e.g. charities, trade unions and religious bodies) in the form of regular gifts and financial support, such as scholarships, union strike pay, union sickness benefits and relief payments.

**(e) Current transfers from other households** - Current transfers from other households in the form of family support payments (such as alimony, child and parental support), regular receipts from inheritances and trust funds, regular gifts, financial support or transfers in kind of goods or services (e.g. housing or child care services). They include transfers from non-resident households (remittances) which can be of significant importance to the economic well-being of some households and are of particular policy interest for a number of developing countries.

### **5 Current transfers paid**

Current transfers paid consist of direct taxes (net of refunds), compulsory fees and fines, current inter-household transfers paid, employees' social insurance contributions, and current transfers to non-profit institutions.

The micro cash disposable income can be expressed as follows:  $DI = 1 + 2 + 3 + 4 - 5$ . The negative values recorded in the micro source (e.g. for self-employment income) are taken as they are, and not, for example, replaced with zeroes (Fesseau M. &, 2013, pág. 57 & 58).

Annex 2  
Household Incomes and Expenditures National Survey of Mexico<sup>9</sup>  
Questions regarding Education and Health care entries.

**Education:**

HOUSEHOLD QUESTIONARY:

SECCIÓN III. DEMOGRAPHIC CHARACTERISTICS

LEVEL AND GRADE ATTENDED:

16. ¿Which is the level or grade you attend?

LEVEL

- 1 Pre-School
- 2 Elementary School
- 3 Junior High School
- 4 High School with Technical Specialty
- 5 Senior High School or Bachelor Degree.
- 6 Technical Career with Bachelor Degree
- 7 Grade on Education for Elementary School
- 8 College
- 9 Master Degree or Doctorate.

TYPE OF SCHOOL

17. ¿The school you attend (NAME) is....

- 1 Public or of government?
- 2 Private or of payment?
- 3 Other type?

**Health care:**

INDIVIDUALS OLDER/YOUNGER THAN 12 YEARS OLD QUESTIONNAIRE

SECTION X. HEALTH

HEALTH/MEDICAL SERVICE

3. ¿In which institution are you subscribed?:

- At IMSS?
- At ISSSTE?
- At State ISSSTE?
- By PEMEX, National Defense or National Marine?
- Other. .

5. When you suffer a health problem, ¿In which Institution are you attended?

- Health Centers (Health Ministry).....
- Hospital or Institute (Health Ministry)...
- Social Security o IMSS.....
- IMSS-Oportunidades.....
- ISSSTE.....
- State ISSSTE .....
- Other medical public service (PEMEX, Defense, Marine, DIF, INI, GDF)
- Private Practice/Private Hospital.....

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<sup>9</sup> (INEGI, 2013) Free translation.

Annex 2

Household Incomes and Expenditures National Survey of Mexico<sup>10</sup>

Questions regarding Education and Health care entries.

- Physicians of Pharmacy/Drug Store.....
- Medicaster, Witch Doctor, etcetera.....
- Automedication.....
- Other. ....

6. In the last 12 months, ¿Have you been sick or suffered of any pain, discomfort or accident that had impede you to do your work or daily activities?

- Yes
- No

7. ¿Have you receive medical attention:

- always?.....
- almost always?.....
- seldom?.....
- never?.....
- some times?.....

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<sup>10</sup> (INEGI, 2013). Free translation.

### Annex 3

#### STiK Education

**Table 1**  
Total public enrolment expanded with population ratio, ENIGH 2012

Educational level	Q1	Q2	Q3	Q4	Q5	Total students
Pre-primary education schools, public sector	1,105,599	1,049,618	897,943	608,912	371,424	4,033,496
Primary education schools, public sector	4,177,217	3,515,511	2,673,610	2,024,661	863,233	13,254,232
General secondary education schools, public sector	1,577,788	1,603,555	1,407,116	1,039,285	466,549	6,094,293
Technical secondary education schools, public sector	36,050	39,319	26,809	6,226	29,557	137,961
Higher middle education schools, public sector	710,644	1,278,223	1,068,257	966,356	487,628	4,511,108
Schools that combine multiple education levels, public sector	14,467	17,580	3,947	15,643	16,159	67,796
Higher education schools, public sector	219,631	371,864	522,407	720,812	954,400	2,789,114
<b>Total students</b>	<b>7,841,396</b>	<b>7,875,670</b>	<b>6,600,089</b>	<b>5,381,895</b>	<b>3,188,950</b>	<b>30,888,000</b>

Source: prepared by author with data from ENIGH 2012.

**Table 2**  
Total public enrolment expanded with population ratio ENIGH 2012, official data and coverage ratio

Educational level	Q1	Q2	Q3	Q4	Q5	Total students	Total students Official data source	Coverage ratio
Pre-primary education schools, public sector	1,105,599	1,049,618	897,943	608,912	371,424	4,033,496	4,050,267	1.004
Primary education schools, public sector	4,177,217	3,515,511	2,673,610	2,024,661	863,233	13,254,232	13,662,794	1.031
General secondary education schools, public sector	1,577,788	1,603,555	1,407,116	1,039,285	466,549	6,094,293	5,684,414	0.933
Technical secondary education schools, public sector	36,050	39,319	26,809	6,226	29,557	137,961	326,839	2.369
Higher middle education schools, public sector	710,644	1,278,223	1,068,257	966,356	487,628	4,511,108	4,403,317	0.976
Schools that combine multiple education levels, public sector	14,467	17,580	3,947	15,643	16,159	67,796	116,479	1.718
Higher education schools, public sector	219,631	371,864	522,407	720,812	954,400	2,789,114	2,041,888	0.732
<b>Total students</b>	<b>7,841,396</b>	<b>7,875,670</b>	<b>6,600,089</b>	<b>5,381,895</b>	<b>3,188,950</b>	<b>30,888,000</b>	<b>30,285,998</b>	<b>0.981</b>

Source: prepared by author with data from ENIGH 2012.

**Table 3**  
Total public enrolment official data distributed with ENIGH 2012

Educational level	Q1	Q2	Q3	Q4	Q5	Total students
Pre-primary education schools, public sector	1,110,196	1,053,982	901,677	611,444	372,968	4,050,267
Primary education schools, public sector	4,305,980	3,623,877	2,756,024	2,087,071	889,842	13,662,794
General secondary education schools, public sector	1,471,672	1,495,706	1,312,479	969,387	435,171	5,684,414
Technical secondary education schools, public sector	85,405	93,149	63,512	14,750	70,023	326,839
Higher middle education schools, public sector	693,663	1,247,680	1,042,731	943,265	475,976	4,403,317
Schools that combine multiple education levels, public sector	24,855	30,204	6,781	26,876	27,762	116,479
Higher education schools, public sector	160,790	272,239	382,450	527,701	698,709	2,041,888
<b>Total students</b>	<b>7,852,562</b>	<b>7,816,837</b>	<b>6,465,654</b>	<b>5,180,493</b>	<b>2,970,451</b>	<b>30,285,998</b>

Source: prepared by author with data from ENIGH 2012 and Official source of data.

## Annex 3

### STiK Health care

**Table 4**  
Number of attended patients by public institutions, ENIGH 2012

Public institutions	Q1	Q2	Q3	Q4	Q5	Number of patients
Health Centers (Health Ministry)	16,259,507	12,328,667	8,720,005	4,822,424	1,660,434	43,791,037
Hospital or Institute (Health Ministry)	2,696,933	2,696,591	1,541,339	1,187,776	510,891	8,633,530
IMSS	2,131,232	4,860,380	6,868,881	8,067,524	6,507,140	28,435,157
IMSS OPORTUNIDADES	1,562,143	732,231	504,794	196,077	122,462	3,117,707
ISSSTE	170,878	545,258	843,356	1,511,347	2,410,211	5,481,050
ESTATE ISSSTE	26,779	132,748	166,294	287,729	416,599	1,030,149
Other medical public service	53,224	180,114	236,170	320,666	381,544	1,171,718
<b>Number of patients</b>	<b>22,900,696</b>	<b>21,475,989</b>	<b>18,880,839</b>	<b>16,393,543</b>	<b>12,009,281</b>	<b>91,660,348</b>

Source: prepared by author with data from ENIGH 2012

**Table 5**  
Number of attended patients by public institutions ENIGH 2012, official data and coverage ratio

Public institutions	Q1	Q2	Q3	Q4	Q5	Number of patients	Number of services given by public institutions	Coverage ratio*
Health Ministry	18,956,440	15,025,258	10,261,344	6,010,200	2,171,325	52,424,567	133,037,643	2.538
IMSS	2,131,232	4,860,380	6,868,881	8,067,524	6,507,140	28,435,157	128,887,971	4.533
IMSS OPORTUNIDADES	1,562,143	732,231	504,794	196,077	122,462	3,117,707	21,522,041	6.903
ISSSTE	170,878	545,258	843,356	1,511,347	2,410,211	5,481,050	25,810,192	4.709
SERMED_OTROS	80,003	312,862	402,464	608,395	798,143	2,201,867	13,117,982	5.958
<b>Number of patients</b>	<b>22,900,696</b>	<b>21,475,989</b>	<b>18,880,839</b>	<b>16,393,543</b>	<b>12,009,281</b>	<b>91,660,348</b>	<b>322,375,829</b>	<b>3.517</b>

\* Coverage ratio is considered as the average number of times the people assist to receive health care services.

Source: prepared by author with data from ENIGH 2012

**Table 6**  
Number of health care services given by public institutions, distributed with ENIGH 2012

Public institutions	Q1	Q2	Q3	Q4	Q5	Number of services given by public institutions
Health Ministry	48,105,692	38,129,545	26,040,177	15,252,064	5,510,164	133,037,643
IMSS	9,660,230	22,030,633	31,134,561	36,567,648	29,494,899	128,887,971
IMSS OPORTUNIDADES	10,783,728	5,054,710	3,484,675	1,353,552	845,375	21,522,041
ISSSTE	804,662	2,567,613	3,971,352	7,116,913	11,349,652	25,810,192
SERMED_OTROS	476,631	1,863,926	2,397,745	3,624,613	4,755,067	13,117,982
<b>Number of services given by public institutions</b>	<b>69,830,944</b>	<b>69,646,428</b>	<b>67,028,511</b>	<b>63,914,789</b>	<b>51,955,157</b>	<b>322,375,829</b>

Source: prepared by author with data from ENIGH 2012 and Official source of data.

Annex 4<sup>11</sup>

## Official data on Education

## SUMMARY OF STUDENTS 2011-2012 SURVEY

## TOTAL

TYPE/LEVEL	Total	Public financing				Particular	% by
	enrolment	Total	Federal	Estate	Autonomus	Financing	level
<b>Total Educational System</b>	34,821,326	30,285,998	3,631,952	24,894,316	1,759,730	4,535,328	100.0%
<b>Basic Education</b>	25,782,388	23,397,475	1,691,229	21,702,287	3,959	2,384,913	74.0%
Pre-School	4,705,545	4,050,267	394,681	3,653,443	2,143	655,278	14.0%
Elementary School	14,909,419	13,662,794	880,941	12,781,853		1,246,625	42.8%
Junior High School	6,167,424	5,684,414	415,607	5,266,991	1,816	483,010	18.0%
<b>Media Superior</b>	4,333,589	3,575,925	1,052,582	1,986,504	536,839	757,664	12.5%
Technical degree	383,463	326,839	48,474	263,095	15,270	56,624	1.0%
Senior High School	3,950,126	3,249,086	1,004,108	1,723,409	521,569	701,040	11.4%
<b>Superior Education</b>	3,161,195	2,158,367	422,857	561,581	1,173,929	1,002,828	9.0%
Technical Degree	121,641	116,479	592	111,154	4,733	5,162	0.3%
College	2,810,613	1,931,837	403,297	439,548	1,088,992	878,776	8.0%
<b>Posgraduate</b>	228,941	110,051	18,968	10,879	80,204	118,890	0.7%
<b>Special Training</b>	1,544,154	1,154,231	465,284	643,944	45,003	389,923	4.0%
% por financing	100.00%	87.00%	10.40%	71.50%	5.10%	13.00%	

\*Estimate figures

Source: Principales Cifras Ciclo Escolar 2011-2012, free translation.

<sup>11</sup> (Secretaría de Educación Pública, 2012)

Annex 4<sup>12</sup>

## Official data on Health care

Services Given by Institution 2012  
Estados Unidos Mexicanos

Servicios	Coverage population						
	Subtotal	IMSS	ISSSTE	PEMEX	SEDENA	SEMAR	Estate
<b>Ambulatory Services</b>							
<b>Outpatients</b>	171 375 530	128 887 971	25 810 192	4 673 089	2 696 081	1 064 183	8 244 014
General	107 519 812	85 545 793	15 367 803	1 551 653	781 963	368 102	3 904 498
First Time	32 875 283	22 803 512	7 335 802	614 184	207 890	118 397	1 795 498
Subsequent	74 566 417	62 742 281	8 032 001	937 469	574 073	249 705	2 030 888
Not specified	78 112	0	0	0	0	0	78 112
Specialized	33 742 816	20 089 305	7 829 624	2 098 033	1 094 444	476 705	2 154 705
First Time	12 132 591	8 425 352	2 396 823	391 936	272 582	102 605	543 293
Subsequent	20 895 678	11 663 953	5 432 801	1 293 342	821 862	374 100	1 309 620
Not specified	714 547	0	0	412 755	0	0	301 792
Emergencies 1/	21 721 773	18 422 466	1 098 371	798 143	347 638	114 060	941 095
Dental	7 547 627	4 830 407	1 514 394	225 260	472 036	105 316	400 214
Not specified	843 502	0	0	0	0	0	843 502
<b>Outpatients by Specialty</b>	33 742 816	20 089 305	7 829 624	2 098 033	1 094 444	476 705	2 154 705
Obstetrics Gynecology	3 844 513	2 501 473	757 362	193 205	140 099	36 873	215 501
Pediatrics	2 381 127	897 152	527 265	412 755	140 168	57 124	346 663
Surgery	2 148 671	1 278 545	354 000	93 565	63 767	30 143	328 651
Internal Medicine	3 517 499	2 075 056	780 551	157 793	66 067	24 067	413 965
Other Specialties	21 851 006	13 337 079	5 410 446	1 240 715	684 343	328 498	849 925
No specified	0	0	0	0	0	0	0
<b>Outpatients by kind of Unit 1/</b>	171 375 530	128 887 971	25 810 192	4 673 089	2 696 081	1 064 183	8 244 014
Outpatients	107 780 897	87 955 088	13 749 699	1 208 983	0	405 410	4 461 717
General Hospitalization	51 335 441	37 001 081	8 407 303	1 416 172	1 831 498	497 065	2 182 322
Specialized Hospitalization	11 112 724	3 931 802	2 554 819	2 047 934	864 583	161 708	1 551 878
Not Specified	1 146 468	0	1 098 371	0	0	0	48 097

1/ ISSSTE reports real emergencies so, this do not diminish CONSULTA EXTERNA by kind of service.  
Not available

Source: Principales Cifras Ciclo Escolar 2011-2012, free translation.

<sup>12</sup> (Secretaría de Salud, 2012)