Open Government

Metric

Metric

Conceptual Document

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PRESENTATION

This document outlines the conceptual basis for an Open Government measurement in Mexico. First, we present an overview of different open government indexes, a discussion of the most relevant literature on the subject, and an analysis of an expert survey on the dimensions and components of open government.

Based on these three elements, we develop a working definition of Open Government which revolves around two main dimensions: transparency and citizen participation. We also explain our reasoning behind our interest in considering two perspectives—the government and the citizen—for an analysis of open government. Lastly, we introduce the components we will consider under each dimension, as well as the observable characteristics our measurement will be based on.

HOW SHOULD WE MEASURE OPEN GOVERNMENT?

In the last years, two main research agendas on open government have evolved simultaneously. On one hand, multiple efforts have been devoted to the definition and characteristics of open government. On the other hand, there have been various attempts at measuring said concept. These agendas have not necessarily complemented each other, although it is clear that any measurement of open government implies a definition.

We must recognize, however, that open government—as an idea and as a practice—is still under construction. Our intention here is not to offer a new definition, but instead to identify some measurable operational dimensions of open government for which observable characteristics can be traced, thus moving closer to measuring the level of open government in Mexico. This led us to review the most relevant literature, as well as various measurements intended to evaluate open government or some other related concepts (e.g. open data, transparency). We also developed a survey for local experts, in which we gauged their points of view regarding which attributes or dimensions should be considered parts of open government.

Our systematic review of transparency and open government indexes revealed two important findings. First, only a very limited number of instruments seek to measure open government directly. Second, there is no consensus on how to define or evaluate this concept, even across the reduced amount of existing measurements. While on a global level the *Global Open Data Index* and the *Open Data Barometer* seek to evaluate the levels of openness of the ones they consider the most relevant datasets, the *Open Government Index* is based on citizen and expert perceptions. On a national level, Rodrigo Sandoval's *Medición de la Transparencia en Línea* equates open government to transparency, while Bertot *et al´s Measurement of Open Government: Metrics and Process* is limited to an appraisal of the level to which 30 federal US agencies have incorporated elements from the *Open Government Directive* (OGD) issued by the White House in 2009.[1]

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[1] For a detailed analysis of open government indicators and measurements, see *An analysis of open government, transparency and proactive transparency indicators, indexes and measurements.*

To have a detailed picture of what open government is considered to be in the literature, we located the main definitions. To avoid selection bias, we considered the first ten definitions that came out of searching the words "open government" and "open government definition" on *Google*. We did the same searches on *Google Scholar* to include academic perspectives on the subject. Given that most organizations that measure open government are international, and that the movement for open government started in English-speaking countries, our searches were developed in English. We undertook this exercise on November 3rd, 2015 and excluded any results that linked to open data definitions (which tend to be some of the first to emerge) or lacked their own definition (as with *Gov Lab*, which compiles various definitions from many different sources but specifies no specific selection criteria).

Once we identified the main sources of information and analyzed their content, each definition was disaggregated into its components, as shown in Tables 1 and 2 in the Appendix. We then listed the 33 different concepts found in the definitions for open government, and analyzed how often they appeared (see Table 3 in the Appendix). Figure 1 displays the most frequently referred concepts in open government definitions. We only show attributes that were mentioned in at least three different definitions.

Figure 1. Most important concepts identified in open government definitions (frequency)
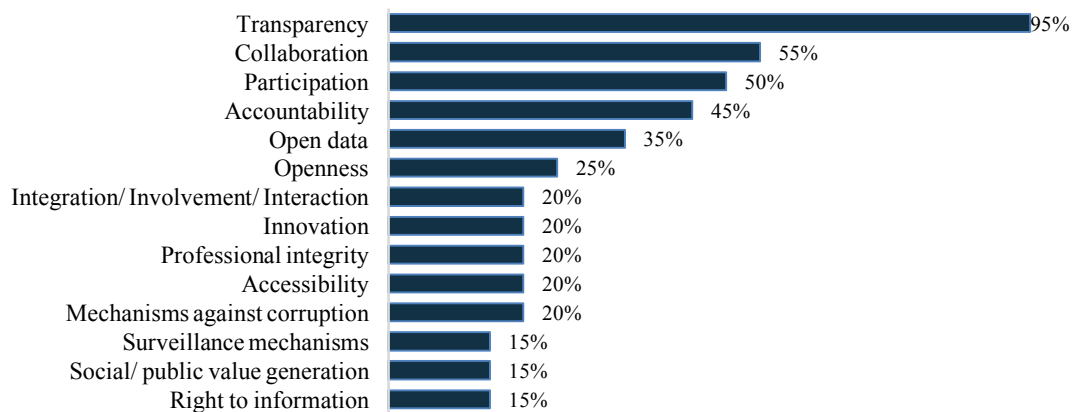
Source: Own elaboration.

As the figure makes clear, transparency was the most frequently identified concept, as it appeared in 95% of the definitions under analysis (19 out of 20). The second most frequently identified concept was collaboration, which appears in more than 50% of the definitions, and the third one is participation, which is considered important by half of them. Other concepts such as the right to information, the generation of social or public value and public surveillance mechanisms were only mentioned by 15% of the definitions.

In sum, based on this conceptual analysis, we can say a government is open inasmuch as it is transparent, fosters citizen participation and collaboration, is accountable, and promotes access to information which is ideally presented in an open data format. Since these elements seem to be the main components of an open government, it is important to examine the different strategies that

have been undertaken to measure them. Table 1 shows which indexes—out of the ones we included in our *Analysis of open government, transparency and proactive transparency indicators, indexes and measurements*—have sought to measure each one of these components.

Table 1. Concepts measured by index.

Index	Concept					
	Transparency	Collaboration	Participation	Accountability	Open data	Right to information
Global Open Data Index					✔	
Open Data Barometer				✔	✔	
Open Government Index			✔			✔
Open Budget Index	✔		✔			✔
Municipal Transparency Index	✔					
Online Transparency Index	✔				✔	✔
Índice de Transparencia de los Ayuntamientos	✔					
Global Right to Information Ratting						✔
Índice del Derecho de Acceso a la Información en México (IDAIM)	✔					✔
Índice Latinoamericano de Transparencia Presupuestaria	✔					
CIMTRA-Municipal	✔		✔			
CIMTRA-Legislativo	✔		✔			
CIMTRA-Delegacional	✔					
Índice de Información Presupuestal Estatal	✔					
Índice de Información Presupuestal Municipal	✔					

Métrica de la Transparencia	✔				✔
Metric for Releasing Open Data (MELODA)			✔		
Medición de la Transparencia en Línea	✔	✔			
Indicadores de iniciativas de datos abiertos en América Latina			✔		

Source: own elaboration.

The table shows that the concept these measurements incorporate the most into their methodologies is transparency (measured in one way or another by 13 out of the 22 indexes), even though none of them directly considers proactive transparency.[2] Open data comes second, as it is included in five out of the 22 measurements. Four of them try to measure open data directly (*Global Open Data Index, Open Data Barometer, Metric for Releasing Open Data* and *Indicadores de iniciativas de datos abiertos en América Latina*); the fifth one (*Online Transparency Index*) only evaluates open data indirectly, since it measures the levels of transparency of Portuguese and Italian municipal governments by looking at three characteristics of information items in each municipality's website: visibility, format of presentation (whether they are processable or extractable), and delivery mode.

The third most frequent component is participation, which four out of the 22 measurements consider. It is important to note that, even though collaboration is frequently mentioned in open government definitions (see Figure 1), none of the indexes we analyzed explicitly sought to measure it. This suggests that even though concepts such as participation, collaboration, involvement (or even other possible concepts like co-creation) could be desirable when establishing the duties and characteristics of open governments, they might all be reduced to one single overarching concept (as in a continuum) when the time comes to measure them in practice. It is also relevant to mention that only two indexes consider the concept of accountability and that, despite the fact that the right of access to information is not an essential part of the definition of an open government (as Tables 1 and 2 in the Appendix show, only three definitions explicitly mention it), it is actually part of six of the indexes we analyzed.

In sum, given the information presented in Figure 1 and Table 1, we may conclude that there is a considerable gap between the complexity of open government as a normative ideal and the attributes that have been considered in existing measurements. In other words, even though in theory open governments should ideally satisfy several conditions, not all of these have been considered or operationalized.

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[2] The only index that looks into a proactive component is Bertot, McDermott and Smith's *Measurement of Open Government: Metrics and Processes.* The authors measure the level to which 30 federal US agencies have incorporated elements from the *Open Government Directive* (OGD), and award extra credit to agencies whose plans exceed the minimum requirements (See Index number 20 in our index analysis).

To make our decision of which dimensions and components to include in the metric as precise and objective as possible, we resorted to a collaborative method in which we gathered expert opinions regarding the most important components that a definition for open government should consider, not only in normative but also in practical (observable) terms.

General description of the survey

We resorted to an online survey in which we asked transparency and accountability experts to imagine they were about to build an operationalizable (i.e. observable, measurable) definition for open government and do the following:

a) Assign scores to a total of 34 concepts to indicate their relevance for a definition of open government (see Table 2). Scores ranged from 0 ("Irrelevant for the definition") to 10 ("Essential to the definition"). Participants could also add any other concepts they thought could be relevant for the definition, and then assign them scores as well.

b) Imagine that these concepts were components of an operationalizable definition of open government and group them into a maximum of five dimensions, each of which could encompass as many as four concepts. Participants could also add any additional concepts they thought could be relevant for the definition and place them under any dimensions.

c) Name every dimension they had decided to group the concepts under.

d) Provide their own (operationalizable) definition for open government.

Concept selection

In order to determine which concepts would be included in the survey, we reviewed the main definitions for open government and identified the main components and dimensions laid out by them (see previous section, see Tables 1 and 2 in the Appendix). We added any concepts that might be relevant for a definition, as well as five controls: efficiency, connectivity, personal data protection, freedom of expression and responsiveness.[3]

The survey thus included 34 different concepts directly or indirectly linked to open government. Scores assigned to our controls would indirectly measure how careful and attentive respondents were when answering the survey. Once the concepts had been selected, we proceeded to generate and send the survey via *Qualtrics LLC*, an online platform.

Participants

We sent the survey to a total of 50 individuals, selected amongst academics, non-governmental organization (NGO) members, and public servants whose line of work was related to proactive transparency or open government. Participants were given a full week to respond, and their responses were anonymous. Out of the 50 surveys we sent out, 33 were fully answered (two were partially answered); the response rate was thus 66%.

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[3] These concepts were controls in the sense that, even if they might be desirable features in any open government, they are still too general and abstract to be measured, which renders them irrelevant for the purposes of this research.

Analysis

We analyzed the results on *Stata/MP 13.0*. The importance assigned to each concept across the board was analyzed via average scores and standard deviations. Analyzing the way these concepts were grouped into dimensions required more sophistication. Firstly, we identified the total number of dimensions respondents had considered important in the third step of the survey (62 in total). These were collapsed into eight general dimensions that would give the analysis of their components more sense. These eight dimensions were:

i.   Access/Transparency
ii.   Accountability
iii.   Participation
iv.   Control
v.   E-government/Digital government/Technological innovation
vi.   Means/Ends
vii.   Data protection
viii. Others

Once the 62 dimensions enunciated by our respondents had been grouped, we analyzed the frequency with which every concept out of the original 32 had been grouped under every dimension.

Results

Table 2 shows each attribute according to the average importance assigned to them by respondents.

Table 2. Average importance assigned to concepts

Ranking	Concept	Average importance	Standard deviation ±
1	Participation	9.17	1.90
2	Open data	8.80	1.56
3	Transparency	8.60	2.55
4	Accountability	8.31	2.41
5	Accessible information	8.02	2.85
6	Proactive transparency	7.97	3.08
7	Clear information	7.82	2.97
8	Access to information	7.62	2.87
9	Timely information	7.57	2.74
10	ITC	7.14	2.97

11	Collaboration	7.05	3.24
12	Joint decision-making	6.82	3.33
13	Shared responsibility	6.57	3.73
14	Citizen control	6.57	3.43
15	Surveillance	6.28	3.45
16	Innovation	6.17	3.32
17	Data reuse	6.17	3.66
18	Connectivity*	6.00	3.32
19	Co-creation	6.00	3.55
20	The public demands accountability	5.88	3.47
21	Consultations	5.80	3.46
22	Focalized transparency	5.68	3.68
23	Responsiveness*	5.68	3.76
24	Oversight	5.68	3.23
25	E-government	5.62	3.54
26	Archives	5.51	3.62
27	Metadata	5.40	3.80
28	Co-production	5.17	3.52
29	Freedom of expression*	5.08	3.74
30	Protections to denouncers	4.91	3.76
31	Accounting	4.77	3.13
32	Personal data protection*	4.60	3.52
33	Efficiency*	4.37	3.82
34	Reactive transparency	4.14	3.44

Source: own elaboration.
*Control.
Note: the maximum score was 10; the minimum score was zero.

Table 2 shows participation was the most relevant concept (according to the average importance assigned to it by experts), followed by open data and transparency (these concepts' average scores were 9.17, 8.80 and 8.60, respectively). Reactive transparency was awarded the lowest score, which is congruent with the fact that we expect open governments to do more than just

respond to citizen requests. On the other hand, none of our controls scored anything greater than 6.00; participants in general thus (we may assume) paid attention to the instructions. Lastly, nine participants also included additional concepts they thought should be added. These are shown below.

Table 3. Other concepts incorporated by survey respondents

Concept	Average importance
Trust	10
Plain language	10
Value creation	10
Executable	10
Financing sources, civil society and the role of the private sector	10
Anonymization sanction systems.	9
Improvements in management	9
Value internalization	9

Source: own elaboration.

As Table 3 shows, none of the additional concepts suggested by participants were mentioned more than once; all of them were awarded high levels of importance and are difficult to measure in practical terms. Table 4 shows the general (conflated) dimensions respondents mentioned in part two of the survey.

Table 4. Dimensions by percentage of mentions.

Dimension	Percentage of mentions	Ranking
Access/Transparency	100%	1
Participation	76%	3
Means/Ends	39%	6
E-government/Innovation	30%	5
Others	24%	8
Accountability	12%	2
Control	9%	4
Data protection	6%	7

Source: own elaboration.

As the Table makes evident, every participant (without exception) considered transparency to be one of the dimensions under which concepts related to open government had to be grouped in order to have a measurable definition. The second most frequently mentioned dimension was participation, with a 76%.

Although participants referred to six additional categories, there seemed to be a lack of consensus given that all of them merited considerably less than 50% of the mentions. It is interesting to note, for example, that even though accountability was the fourth most important concept for experts, only 12% saw it as a potential dimension of an operationalizable definition of open government. This may suggest, for example, that instead of being one of the dimensions of open government, accountability is better understood as a transversal process which derives from the coordinated actions of various oversight mechanisms.

Lastly, Table 5 shows the frequency with which each concept was included as part of each one of the previous dimensions.

Table 5. Frequency of mentions for each concept (in general and per dimension).

Concept	General frequency of inclusion in dimensions	Dimensions							
		Access/Transparency	Accountability	Participation	Control	E-government/Innovation	Means/Ends	Data protection	Others
Open data	85%	52%	0%	3%	0%	15%	15%	0%	0%
Participation	79%	3%	0%	64%	3%	0%	9%	0%	0%
Transparency	61%	52%	0%	3%	0%	0%	9%	0%	6%
Access to information	58%	45%	0%	3%	0%	0%	3%	0%	9%
Accountability	25%	12%	12%	6%	9%	0%	6%	0%	12%
Proactive transparency	48%	42%	0%	0%	0%	0%	3%	0%	6%
Citizen control	45%	3%	6%	24%	9%	0%	0%	3%	3%
Accessible information	42%	33%	0%	3%	0%	6%	3%	0%	0%
Collaboration	42%	3%	0%	33%	0%	0%	6%	0%	0%
Joint decision-making	42%	0%	0%	33%	0%	0%	6%	0%	3%
Innovation	42%	6%	3%	12%	0%	15%	3%	0%	3%
ITC	42%	12%	0%	3%	0%	21%	6%	0%	0%
Shared responsibility	39%	0%	0%	24%	3%	0%	12%	0%	0%
Timely information	35%	24%	0%	0%	0%	3%	6%	0%	3%
Co-creation	33%	3%	0%	27%	0%	0%	0%	0%	3%
E-government	30%	9%	0%	3%	0%	9%	9%	0%	0%

Oversight	30%	0%	9%	12%	6%	0%	0%	0%	3%
Data reuse	27%	9%	3%	3%	0%	3%	3%	3%	3%
Clear information	27%	18%	0%	0%	0%	3%	6%	0%	0%
Archives	27%	12%	0%	0%	0%	0%	9%	3%	3%
The public demands accountability	21%	0%	6%	9%	3%	3%	0%	0%	0%
Metadata	21%	9%	0%	3%	0%	6%	0%	3%	0%
Responsiveness*	21%	0%	6%	6%	0%	3%	0%	0%	6%
Efficiency*	15%	0%	0%	3%	0%	6%	6%	0%	0%
Connectivity*	15%	3%	0%	0%	0%	3%	9%	0%	0%
Focalized transparency	12%	12%	0%	0%	0%	0%	0%	0%	0%
Consultations	12%	0%	0%	6%	0%	0%	3%	0%	3%
Freedom of expression*	12%	3%	0%	0%	0%	0%	3%	3%	3%
Data protection*	9%	0%	0%	0%	0%	0%	0%	6%	3%
Surveillance*	9%	0%	0%	3%	0%	0%	3%	0%	3%
Reactive transparency	6%	6%	0%	0%	0%	0%	0%	0%	0%
Co-production	6%	3%	0%	0%	0%	0%	0%	0%	3%
Protection to denouncers	3%	0%	0%	0%	0%	0%	0%	3%	0%
Accounting	3%	0%	0%	0%	0%	3%	0%	0%	0%

Source: own elaboration.

As the Table shows, open data was the concept most frequently considered as part of some other dimension with a frequency of 85%; most of the times it was classified under an Access/Transparency dimension. It is interesting to note that, even though this concept was not ranked first as a component of open government (see Figure 1), it was the most referred to when experts were asked to create dimensions. This is probably due to the fact that, in practice, open data can be assessed very concretely. Other concepts such as participation, transparency, access to information, accountability, and proactive transparency were mentioned by more than 50% of the experts when they were asked to create categories.[4]

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[4] While participation tended to be categorized under *Participation* (by 64% of the respondents), transparency, access to information and proactive transparency were mostly grouped under *Access/Transparency* (with 52, 45, and 42% of the mentions, respectively). Accountability is an interesting concept, since even though more than 12% of respondents thought it should merit a dimension of its own (see Table 4), there was no clear consensus regarding which other dimensions it could be classified under: 12% thought it should be under *Accountability,* another 12% thought of *Access/Transparency,* 9% placed it under *Control,* 6% placed it under *Participation* and another 6% placed it under *Means/Ends.* In addition, *Accountability* was one of the dimensions under which the shortest amount of concepts were grouped, unlike *Access/Transparency* and *Participation.* This may also signal, as was mentioned above, that even though accountability is desirable in any democratic government, it is a transversal concept that relies on various mechanisms

<u>CONCLUSIONS</u>

Based on our review of the literature, our study of existing measurements, and our analysis of the expert survey, we may conclude that transparency, participation, and open data are important parts of what an open government is expected to be like. Even though collaboration is also an important component of open government in the literature, none of the measurements have incorporated it and experts did not find it essential. And although accountability is usually considered relevant, experts did not see a constitutive dimension of open government in it.

Based on these considerations, our empirical study of open government will be based on two fundamental dimensions: transparency and participation. We contend that the rest of the relevant concepts—such as access to information, proactive transparency, and open data, as well as collaboration, joint decision-making, shared responsibility and citizen control—can be grouped under these two categories. The ideal interaction between these two dimensions—which could be seen under the logic of supply and demand—would result in the creation of public value in a scenario of governance in which the government informs its citizens on its activities, includes them in several levels of their political and decision-making processes, and therefore becomes more efficacious, efficient, responsive and legitimate. From a citizen's perspective, openness gives citizens a greater degree of control over the actions of public officials, and increases the chances both that their voices will be heard and that solutions will be found for their problems.

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that are not necessarily part of an open government, unlike proactive transparency or citizen participation. Lastly, despite the fact that our controls ranked low, other concepts such as innovation, co-production, co-creation, E-government, and focalized transparency did as well.

MEASURING OPEN GOVERNMENT

As noted above, we undertook a series of analyses in order to identify the key elements of an observable, measurable operational definition for open government. Our review of the literature and measurements, as well as our expert survey, are the basis of the measurement tool for our Open Government Metric. Detailed below are the dimensions and components that integrate our measurement tool.

Our measurement for open government in Mexico is divided into two dimensions: transparency and citizen participation. They both are essential for governments and citizens to interact and achieve, each from a different position, more efficacious public policies. When transparency mechanisms are implemented, citizens can have access to information about public decision-making and, due to the existence of channels for citizen participation, influence public decisions. Both dimensions complement and reinforce each other. Transparent governments that bar citizens from getting involved in any political processes are reduced to governments that only make their actions public; governments that incorporate citizens into decision-making but provide them with no useful information turn participation into a merely decorative feature. Only when both dimensions coexist can governments become open—or, in other words, give their citizens access to both information and decision-making, and get informed, capable citizens involved in controlling the exercise of power (Meijer et al, 2012; Mulgan, 2014; Cejudo, 2015).

Various components are classified under each dimension for measurement, since they have deep ties with transparency and participation and constitute observable attributes of either one or the other. Four components are associated with transparency: access to information, reactive transparency, proactive transparency, and open data. These components are meant to assess whether the government—meaning every institution with transparency obligations—publicizes information about its decisions and to what degree, as well as the quality of said information. Three components are associated with citizen participation: consultations, involvement, and collaboration. These components reflect the various ways in which citizens may have an influence over decision-making. Even though each one of these components presupposes different levels of empowerment, none of them is considered to be better than the rest *per se*.

The first component of our measurement tool focuses on the efforts of the government to move forward in both dimensions. However, many indexes of open government have only considered transparency and citizen participation (and their corresponding components) from the government's perspective. For an open government to exist, information must be useful for the citizen, and participation mechanisms meant to foster participation must actually allow citizens to get involved in public affairs. Therefore, our metric also incorporates a complementary perspective: that of the citizen. This is meant to reflect whether government efforts for greater transparency and citizen participation are implemented in such a way that concrete benefits can be reaped by citizens in their daily lives.

OPEN GOVERNMENT FROM THE GOVERNMENT'S PERSPECTIVE

Dimension I: Transparency from the government's perspective

According to the Royal Spanish Academy, transparent (as an adjective) means that a body "allows objects to be clearly seen through it". A second meaning states that said body "reveals itself without declaring or manifesting itself"; a third one, that it is "clear, evident, that it is easy to understand without ambiguity". In agreement with those definitions, Cejudo, López and Ríos (2012) argue that transparency, from a government's point of view, is a quality: "a business, an organization, or a government is transparent when they keep accessible, timely, complete, relevant and verifiable information flowing". (2012: 18).

Government transparency therefore requires not only for the government to publish information, but also for citizens to access, understand and use said information (Ginsberg et al, 2012). This is why transparency policies are argued to consist in "government action[s] meant to maximize information publicity along the exercise of power" (Merino, 2008 in Cejudo, López and Ríos 2012, 18-19). This means that transparency is not a given, it depends on deliberate government actions; therefore, certain decisions determine the degree to which transparency exists. Government transparency thus assumes not only the government's willingness and efforts to avoid ambiguity and publish clear information for citizens to use; as laid out by article 6 in the Constitution, transparency also requires an audience that can acquire said information, understand it, and use it (Ginsberg et al, 2012).

It is therefore not surprising that government transparency has become a desirable feature for democratic governance, seeing as it has been linked with a series of positive consequences for politics and government, public management and public policy design (Cejudo, López and Ríos, 2012, 19). Transparency has also become a principle that guides state actions in Mexico. One of the main assumptions is that transparency makes governments less corrupt, more efficient, more democratic and more legitimate (Hood and Heald 2006 in Meijer, t'Hart and Worthy 2015, 1). As a tool, not only is it a basic ingredient of accountability, which makes information available to the public and allows them to exercise their right to information, but it is now also a cornerstone of our idea of modern democracy (Cucciniello, Nasi and Valotti 2012).

From the government's perspective, transparency—considered a fundamental dimension of open government—goes beyond making information available to the public. Ideally, information should make it easier for the government to identify and solve problems (by giving citizens resources they can use to get actively involved in the public policy process) (Cicatiello, De Simone and Gaeta 2015; McGee and Gaventa 2010), as well as more efficient (as proactive and focalized transparency reduces the cost of responding to individual information requests) (The Economist 2013), and more legitimate (de Fine Licht, Naurin, Esaiasson and Gilljam 2012).

Based on this logic and on the definitions we found on open government, as well as on the measurements we analyzed and the findings from our expert survey, our methodology regarding

transparency as a dimension of open government is set to find whether (1) regulated entities have mechanisms that allow citizens to access information on government decisions and actions, (2) there are websites where public information can be accessed and analyzed, (3) regulated entities publish any additional information that is not required by law in a focalized fashion, and (4) information is made public in an open data format. To this end, our unit of analysis is every institution with transparency obligations. Our measurement for transparency from the government's perspective will have four main components, each comprised by a series of indicators and variables: 1) Access to information, 2) Reactive transparency, 3) Proactive transparency, and 4) Open data.

- <u>Access to information</u>

The right to information, which is materialized in the right to request information from authorities, must not only be backed by law but also by established procedures (Fierro, García, Ríos, Velázquez and Zavala 2014, 92). This means that access to information must not only be recognized by current legislation: in practice, homogenous and effective procedures to receive, process and answer information requests must exist to provide citizens with timely access to the information they require.

Although many organizations have set out to measure access to information, indexes are usually limited to an analysis of the legal framework. A relevant international example is the *Global Right to Information Rating*: in an attempt to measure the strength of various frameworks around the globe, its methodology includes a series of indicators that analyze the legal stipulations around access to information procedures. In a similar vein, the *Índice del Derecho de Acceso a la Información en México* (IDAIM) measures the quality of transparency laws in Mexico, devoting an entire dimension to access to information procedures and legal obligations. Another case is *CIMTRA-Legislativo*, which (using a less elaborate methodology) evaluates the level of access to public information for each Mexican state's Congress. The *Open Government Index*, in its right to information dimension, evaluates whether information requests are responded, whether this is done within a reasonable amount of time, whether the information citizens have access to is pertinent and complete, and whether requests are reasonably priced and responses require bribery, all based on expert and citizen perceptions.

We must also note that CIDE's *Métrica de la Transparencia* evaluates the legal framework surrounding access to information by looking at transparency laws at both the federal and state levels. This measurement also simulates citizens' experiences and, via a series of information requests, measures the quality of response procedures (how information requests are submitted and managed, timeliness of responses) as well as the quality of the responses themselves (including whether the information required is actually what public officials provide, and the adequacy of the format).

Our instrument will seek to determine, for each institution with transparency obligations, 1) whether any law, regulation or guideline establishes a specific procedure to grant citizens with access to information, and 2) whether any processes meant to guarantee access to information are able to provide complete information, comply with the legal time limits, and respond quickly, accounting also for the various possible mechanisms there are to respond.

- Reactive transparency

Reactive transparency refers to the act of disclosing information that, according to the law, must be made available. This component analyzes the quality of the information that is available online, on every institution's transparency website (at the federal, state and municipal levels), considering four areas: audit results, budget, activity report and public programs. Several characteristics of each website are considered, including the presence of content and resources to help citizens understand the information available; the presence of audit, participation or consultation mechanisms in the websites; the time each website takes to load; the search engine; the site map, and the use of unique URLs.

Drawing on CIDE's *Métrica de la Transparencia,* here we will try to measure reactive transparency by looking into each institution's transparency website. This stems from the fact that, in Mexico, an institution's transparency website is where all the information mandated by law must be made available. The mere existence of a website, however, is not enough to certify that regulated entities have actually fulfilled their obligation to provide citizens with the information that, according to the law, must be made public. Therefore, we propose a series of indicators to measure the levels of completeness and accessibility of the information available in each website. Our methodology is partially based on *Métrica de la Transparencia's* website analysis. The indicators we will consider are:

a. Complete information
b. Accessible information
    i. Clear language
    ii. Level of accessibility per navigator
    iii. Navigation route
    iv. Legibility
    v. Plug-ins
    vi. Search engine

- Proactive transparency

There are two main ways in which information may be made available to the public: citizens may file information requests and get the information they need (reactive disclosure, which would be captured by the previous component), or institutions may—on their own account—publish the information (proactive disclosure) (Darbishire 2010). The government may benefit from actively publishing information: accountability may be strengthened, government integrity may be promoted, citizen engagement in public decision-making may be fostered, a better flow and management of information may be encouraged (therefore increasing efficiency), and greater equality in access to information may be attained (Ibid).

The former Federal Institute of Access to Information and Data Protection (IFAI, now the National Institute of Transparency, Access to Information and Data Protection, or INAI) also distinguished between active and proactive transparency: even if both refer to the act of regulated entities making information available without the need for an information request, the former is strictly limited to the legal requirements (i.e. it is the basic minimum) while the latter involves an effort to exceed legal requirements and encourage citizens to reuse information that is relevant to them. A policy of proactive transparency is meant to add value to public information, promote civil involvement and participation, and increase the legitimacy and recognition of proactive institutions (IFAI 2014; see also Peña 2015).

Although article 4 in the General Act of Transparency and Access to Public Information specifies that all the information generated, obtained, transformed or in the hands of regulated entities is public and must be accessible to anyone, access to information will not, in and of itself, generate solutions for public problems. Hill (2010) argues that this can only happen if transparency is also focalized; that is, if a) transparency is aimed at solving a specific social problem, b) information benefits a specific audience, c) the government publishes specific, well-defined information, d) adequate communication mechanisms are used. In this sense, focalized transparency is a more specific form of proactive transparency: not only does the government go beyond legal requirements, but its information is also targeted towards a specific issue and audience.

As our review of measurements made clear, despite the wide array of transparency measurements, none of them consider proactive transparency. Even *Métrica de la Transparencia* limits its analysis of proactive transparency to the quality of transparency websites, without considering whether governments publish any information that goes beyond their legal obligations.

In sum, while making information available for citizens is essential to guarantee their right to access to information, the way said information is targeted and presented, as well as its quality, is also important. Therefore, our proactive transparency component will consider two sets of indicators: one derived from our analysis of the quality of every institution's website, and the other set to determine whether the available information goes beyond the minimum legal requirements, as well as whether it is targeted towards any concrete public problems. Specifically, this component will show whether 1) regulated entities publish any information aside from any legal requirements, and 2) whether this information is related to any specific issue and is targeted towards any specific audience. Our unit of analysis in this case will be each institution's websites (both their transparency websites and their institutional websites).

- Open data

The General Act for Transparency and Access to Information establishes in article 51 that "Guarantor Agencies shall promote the publication of Open and Accessible data". Article 129 of the same Law also specifies that "In the event that the information requested consists of databases the delivery of it in Open Formats must be favored.". Article 3 defines Open Data as data that is a)

accessible, b) comprehensive, c) free, d) non-discriminatory, e) timely, f) permanent, g) basic, h) machine-readable, i) in open format, and j) free use.

For information to be fully understood—and especially if it is numeric—, it is sometimes necessary for it to be analyzed and visualized, which requires that the material be open so that it can be freely used and reused (Open Knowledge 2015). Open data do not only allow information to be shared, accessed and reused by the greatest possible number of citizens, but it also has the potential to create commercial and social value through innovation, and to foster citizen participation and involvement (Ibid). According to the open definition, an item can be considered open only if it fulfills the following conditions:

1. Open license, which must allow:
   a. Free use of the licensed work
   b. Redistribution (including sale of any work derived from the use of information)
   c. Modification
   d. Separation (allow any part of the work to be freely used, distributed, or modified separately from any other part of the work)
   e. Compilation (allow the licensed work to be distributed along with other distinct works without placing restrictions on these other works)
   f. Non-discrimination
   g. Propagation (The rights attached to the work *must* apply to all to whom it is redistributed without the need to agree to any additional legal terms)
   h. Application to any purpose (the license must allow use, redistribution, modification, and compilation for any purpose; the license must not restrict anyone from making use of the work in a specific field of endeavor)
   i. No charge (the license must not impose any fee arrangement, royalty, or other compensation or monetary remuneration as part of its conditions).
2. Machine-Readable
3. Access (the work must be provided as a whole and at no more than a reasonable one-time reproduction cost, and should be downloadable via the Internet without charge)
4. Open format (convenient and editable; machine-readable, in bulk)

At a global level, there are two important measurements for open data: the *Global Open Data Index* and the *Open Data Barometer*. They both assess which countries release open data and which do not, which entails an analysis of key datasets. In the *Global Open Data Index*, the ten selected datasets are examined on the basis of technical (availability, format, machine-readability, whether they are updated, etcetera) and legal questions (whether it is public, free and openly licensed). In the case of the *Open Data Barometer*, 15 datasets are evaluated in terms of openness and availability (very similar to the *Global Open Data Index*); in addition, an expert survey is performed in every country to determine, on a scale from 0 to 10, the perceived impacts of data on the political, economic and social arenas.

Since open data are an important component of transparency in an open government, our methodology evaluates open data as an independent component. Every selected dataset will be evaluated according to the following indicators:

a. Online availability
b. Digital format
c. Machine-readability
d. Available in bulk
e. Free access
f. Open license
g. Data currency
h. Data permanence
i. Clear URLs
j. Easiness to find
k. Public availability

Dimension II: Citizen participation from the government's perspective

A considerable amount of research on citizen participation characterizes it as a desirable feature in decision-making processes since it allows for social change (Nelson and Wright 1995) and, at the same time, improves the decisions made by public officials (Beierle 1999; Thomas 1995) This implies citizen participation not only benefits citizens—since it improves the decision-making process—but also governments—since they generate better results (Irving and Stansbury 2004).

One of the most influential authors in the study of citizen participation is Sherry Ornstein (1969) who argues that this form of power redistribution deliberately allows citizens to get involved in public decision-making. Citizen participation thus takes more than one form: it is a continuum that varies according to the level of empowerment of citizens. The most basic form of participation requires the government to provide information to the citizens about public decisions and actions. On the other extreme of the continuum, citizens are directly involved in public decision-making (Arnstein 1969; Walters et al. 2000; Ross et al. 2002; Bishop and Davis 2002; IAPP 2005; Fung 2006; Head 2008).

Our measure for citizen participation from the government's perspective seeks to determine 1) the ways in which public authorities take into account citizens' opinions in decision-making, 2) whether the decision-making mechanisms in place allow for feedback on the decisions made, 3) whether regulated entities have any mechanisms that allow for co-creation. To this end, we take each institution as a unit of analysis. We will thus try to determine how many and which stages of the policy making process allow for citizen participation. This means our measurement tool is meant to measure 1) the 'modality' of citizen participation (henceforth referred to as "participation

components") 2) in the different moments of public policy. Concretely, we will observe three participation components (consultations, involvement, collaboration) in three stages of public policy (design/planning, implementation, and evaluation).

We present an analysis of the three participation components below, so as to define both the purpose each one has under the government's perspective and a concrete indicator that will allow us to measure them.

- <u>Consultations as a form of citizen participation</u>

By consulting the population in order to get feedback on their own decisions or devise possible solutions to public issues, government officials gain knowledge on the opinion of certain social groups. For consultations to be effective, the government is required to inform citizens about their actions, which allows citizens to become more "educated" about the government's vision and therefore have a better understanding of any decisions related to design, implementation or evaluation (Head 2008). In the design (planning) and implementation stages, providing citizens with information allows officials to explain their motivations and, ideally, to increase their legitimacy (Irving and Stansbury 2004).

Thus, consultations can also work to "educate" officials about the community's interests, as they will gain knowledge regarding the levels of desirability of certain policies (and the reasons behind them), as well as possible errors or new relevant information on the specific topic at hand (Beierle 1999). Based on this new knowledge, public servants will be able to adjust their decisions towards a more favorable implementation of their policies. Various authors argue that policies based on community preferences are easier and less costly to implement, since those citizens that stand to be affected by them are often more collaborative after being taken into account (see Irving and Stansbury 2004).

Governments usually perform consultations via opinion surveys, focus groups or public assemblies. In our measurement, we will attempt to assess citizen participation (from the government's perspective) based on the legal framework. In particular, we will seek to determine whether the different kinds of regulated entities are commanded by law to create formal channels of communication with civil society representatives so as to consult any actions or decisions—in any stage of the policy process (design/planning, implementation, evaluation)—with them. We will also evaluate whether said channels operate in practice.

- <u>Involvement as a form of citizen participation</u>

Getting citizens involved in the policy process means having public officials consider their worries and interests during their decision-making. When citizens are involved in the planning, design, or

evaluation of public policies, politicians will consider their ideas when making final decisions. More importantly, citizen involvement requires officials to provide citizens with explanations as to how their worries and suggestions have been incorporated into the decision-making process (IAPP 2005). This is extremely important, because it prevents spaces for citizen involvement from turning into a mere simulation (Arnstein 1969) and empowers the general population, by inviting them to generate capacities, innovate, and design creative solutions that will ultimately make government actions more efficient (Roberts 1997).

The most frequent mechanisms for citizen involvement in the policy process take the form of workshops, gatherings, and opinion surveys (Arnstein 1969; Head 2008). Our measurement will seek to examine citizen involvement (from the government's perspective) partly by looking at the legal framework. In particular, we will seek to determine whether the different kinds of regulated entities are commanded by law to create formal spaces to receive and analyze citizen proposals about policy design, implementation, or evaluation; as well as any formal mechanisms to inform citizens about the rationale behind policy decisions. We will also try to locate evidence that these mechanisms operate.

- <u>Collaboration as a form of citizen participation</u>

Collaboration is the most advanced form of citizen participation this measurement tool will consider. Collaboration entails full citizen involvement in the decision-making process, from the definition of the issue to be addressed to the ideation of possible solutions and the selection of alternatives (IAPP 2005). This is indeed a process of co-creation in which citizens and officials make decisions together, which spurs innovative government solutions. Collaboration may take the form of officials asking citizens about the best ways to solve an issue and basing their decision fundamentally on their input, or even asking citizens to make the final decision themselves. In any case, this form of participation leads public officials to abandon their traditional roles in every stage of the policy process (Head 2008).

Collaboration is usually fostered through a wide variety of mechanisms, including issue-specific councils, expert committees (fully integrated by citizens), and participative planning structures. Our instrument will seek to determine whether the different kinds of regulated entities are commanded by law to create any such structures, and will also consider whether they actually operate and result in collaborative decisions.

<u>OPEN GOVERNMENT FROM THE CITIZEN'S PERSPECTIVE</u>

Dimensions III and IV: Transparency and Participation from the citizen's perspective

Academic research on transparency and participation tends to assume that once the government decides to make information public or establish channels for citizen participation, civil society will

automatically gain more weight in the decision-making process. However, this is not always the case. Transparency and participation do not call for unilateral actions from the government, but also for the active involvement of those who have been increasingly identified as 'users' (Wagenheim and Rearing 1991; Barzelay and Moukhebir 1996). In other words, the creation of formal mechanisms to disseminate information and include the population in the policy process is not enough. Citizens need these mechanisms to be easily accessible and useful. Only then can states prevent open government from becoming an 'empty ritual' or a simulation in which public officials only appear to—but do not really—share power with the citizens (Arnstein 1969)

Therefore, our measurement explicitly considers the point of view of those on the receiving end of public action. To this end, our citizen's perspective looks at the two previously defined dimensions—transparency and citizen participation—and, in this case, seeks to determine the extent to which formal mechanisms translate into more opportunities for citizen involvement in policy making. This is relevant because transparency assumes citizens and organizations have the capacity and resources to access information regarding the government's actions and the officials that compose it (Bannister and Connolly 2011). Yet making information available, as Head (2006) argues, is not enough for transparency to be effective: the general public must be able to process and use official data for specific purposes. Active participation requires citizens to be able to become part of the policy process (OECD 2001).

Therefore, even if the government retains the authority to make final decisions, a two-way relationship is essential. Citizens must have a real possibility to access information on government policies, as well as to influence their design and implementation. Participation, from a citizen's perspective, is a process that greatly depends on transparency. Any influence laypeople may have on government decisions depends, first and foremost, on them being able to perceive concrete faults in service provision. In general, the only way citizens may realize the presence of unwanted situations is through access to information on public decisions.

Our methodology to measure open government from the citizen's perspective incorporates both dimensions of this concept: transparency and participation. In particular, our instrument seeks to assess (1) the real possibilities citizens have to make decisions over their use of public services given the available information, and (2) the extent to which they can influence public policy in certain areas or topics. We will therefore resort to a series of simulations, taking part in any procedures and requests necessary to obtain the necessary information to make a decision regarding a specific public service or policy area, as well as to propose improvements on the policy process. This entails everything from accessing government websites to visiting government offices, as well as submitting information requests.

The resulting information will allow us to determine (1) whether the relevant information for each specific public service is available, and (2) whether it is sufficient to serve the corresponding purpose. This last criterion requires an evaluation of two features: (1) whether the information is clear (i.e. laid out in plain language), and (2) whether the information is complete (i.e. enough to

allow citizens to fulfill their objectives). As to participation, we will analyze whether there are any mechanisms to influence the formulation, design or implementation of any policies related to each one of the policy areas we selected. If said mechanisms do exist, we will evaluate whether citizens are able to (1) track the status of their proposals and, in case they can, then to (2) participate in any decision-making processes derived from this mechanism.

In order to define which policy areas and information would be the focus of our simulations, we studied the policy areas in which the demand for goods and services among the Mexican population was the greatest. We also looked into the datasets that, according to international standards, must be made available in open formats for each policy area. We specifically analyzed Transparencia Mexicana's Índice Nacional de Corrupción y Buen Gobierno [National Corruption and Good Government Index] (INCBG), the National Institute of Geography and Statistics' Encuesta Nacional de Calidad e Impacto Gubernamental [National Survey of Government Quality and Impact] (ENCIG), and the G8 Open Data Charter and Technical Annex. INCBG seeks to measure corruption levels across public services and bureaucratic procedures associated with every level of government and private businesses. It is based on a nationally representative survey and has been measured five times (2001, 2003, 2005, 2007, 2010). ENCIG seeks to measure citizen perceptions on the quality of public services (also across the three levels of government) and is based on a nationally representative survey that has been performed twice: in 2011 and 2013. Lastly, the G8 Open Data Charter and Technical Annex is a technical document that emanates from the Open Data Charter, signed June 18, 2013 by the G8. This document establishes five strategic principles that are meant to guide G8 members' actions hereafter.

We will trace the route citizens must follow to have access to any relevant information in every policy issue or area of interest. Our intention is to assess whether it is feasible for the average person to obtain data associated with each policy area. A similar exercise will additionally allow us to determine whether it is possible for citizens to have an influence over specific policies in each area or if, on the contrary, their chances of successfully getting involved are slim.

UNITS OF ANALYSIS

Our units of analysis for the government's perspective (for both dimensions) will be the regulated entities that, according to the General Act on the matter, have transparency obligations. They will be grouped under the specific categories the Law identifies: "any authority, entity, organ, and organism that belongs to the Executive, Legislative, and Judiciary powers, autonomous institutions, political parties, trust funds and public funds, as well as any physical or moral person or union that receives and spends public resources or undertakes any acts of authority in the federal, state, or municipal level". We will therefore consider the following groups:

Figure 6. Regulated entities with transparency obligations by group

	Federal government	State governments	Municipal governments
Executive	Federal public administration institutions	State public administration institutions	Mayorships, municipal decentralized organs
Legislative	Chamber of Deputies, Chamber of Senators, Federal Supreme Audit	Chamber of Deputies, State Supreme Audit	NA
Judiciary	Supreme Court of Justice, Judiciary Council, Electoral Court	State Superior Court of Justice	NA
Autonomous institutions	Federal autonomous institutions	State autonomous institutions	NA
Political parties	Federal political parties	Local political parties	
Trust funds, public funds, physical or moral persons or unions that receive and spend public resources or perform acts of authority	Federal institutions	State institutions	Municipal institutions

Source: own elaboration.

Our units of analysis for the citizen's perspective (also for both dimensions) will be the specific policy areas included in the following table:

POLICY AREA	LEVEL OF GOVERNMENT
Security	Federation and state
Health	Federation and state
Social development	Federation and state
Education	Federation and state
Legislative process	Federation and state
Public services	Municipality
Urban development	Municipality

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Appendix

Table 1. General definitions of *Open Government* Nov 3, 2015, by component.

Google ranking	Organization	Components						
1	Open Source	Transparency	Participation	Accountability	Open data	Public surveillance mechanisms		
2	Open Government Guide	Transparency	Participation	Accountability				
3	Wikipedia	Transparency	Public surveillance	Participation	Collaboration in public service improvements	Right to information	Free software	
4	Open Government Standards	*Transparency*						
		Right to information	Proactive disclosure of information	Access and reuse	Open format	Access	Information compilation	Independent review mechanisms
		Participation						
		Openness	Clear, reasonable deadlines	Active collaboration	Apropriate, clear procedures	Transparency and accountability		
		Accountability						
		Code of conduct	Conflict-interest prevention mechanisms	Declaration of goods	Transparency and regulations for lobbying	Informant protection mechanisms	Transparency for acquisitions	Independent review mechanisms
5	Open Government Data	Transparency	Social and commercial value production	Open data				
6	Global Integrity	Transparency	Citizen involvement	Accountability	Open data	E-government	Anti-corruption mechanisms	
7	Open Government Partnership (OGP)	Transparency	Participation	Efficacy	Citizen empowerment	Anti-corruption mechanisms	Accessibility	New technologies
		Innovation	Openness	Timely, highly valuable information	Professional integrity standards	Denouncer protection regulations	Online and mobile connectivity	
8	Organization for Economic Cooperation and Development (OECD)	Transparency	Responsiveness	Accountability	Shared, disseminated information	Free flow of information	Accessibility	
9	White House Memorandum	Transparency	Participation	Accountability				
10	Open Forum Foundation	Proactive and reactive transparency	ccountability deman	Accountability	Collaboration	Anti-corruption mechanisms	Accessibility	Trust
		Integrity	Innovation	Right of access to information	n-restricted informat	Efficiency		

Source: own elaboration

Table 2. Scholarly definitions of *Open government*, Nov 3 2015, by component.

Google Scholar ranking	Authors	Components						
1	Tapscott (2010)	Transparency	Innovation	Collaboration	Openness	Shared resources	Integration	Connection
2	McDermott (2010)	Transparency	Participation	Collaboration				
3	Jansen, Charalabidis y Zuiderwijk (2012)	Transparency	Involevment	Supervision	Open data	Interaction		
4	Yu and Robinson (2012)	Technologic openness	Political openness	Adaptable data	Accountability			
5	Lee and Kwak (2012)	Transparency	Participation	Collaboration	Ubiquitous commitment			
6	Harrison, Pardo and Cook (2012)	Transparency	Valued results	Commitment	Shared data	Sustainable	Interdependence	Integration
7	Harrison, Guerrero, Burke, Cook, Crosswell, Helbig, Hrdinová, and Pardo (2011)	Transparency	Participation	Collaboration	Public value creation			
8	Chun, Schulman, Sandoval, and Hovy (2010)	Transparency	Participation	Collaboration	Web 2.0 Technology			
9	Ramírez-Alujas (2011)	Transparency	Collaboration	Open data	Shared intellectual property	Openness - media and social networks	Interdependence	Integrity
10	Calderón and Lorenzo (2010)	Transparency	Participation	Collaboration	Need/preference-based decisions	Constant conversation	Open, transparent communication	

Source: own elaboration.

Table 3. Concepts by frequency in definitions for *Open government.*

Concept	Frequency	Percentage
Transparency	19	95%
Collaboration	11	55%
Participation	10	50%
Accountability	9	45%
Open data	7	35%
Openness	5	25%
Anticorruption mechanisms	4	20%
Accessibility	4	20%
Codes of conduct/ professional integrity	4	20%
Innovation	4	20%
Integration/involvement/interaction	4	20%
Right to information	3	15%
Production of social/public value	3	15%
Public surveillance mechanisms	3	15%
Proactive transparency	2	10%
Protections to informants	2	10%
Use of technology	2	10%
Shared information	2	10%
Commitment	2	10%
Interdependence	2	10%
Conversation/communication	2	10%
Free software	1	5%
Reuse	1	5%
Compilation	1	5%
E-government	1	5%
Efficacy	1	5%
Citizen empowerment	1	5%
Responsiveness	1	5%
Accountability demands	1	5%
Efficiency	1	5%
Shared resources	1	5%
Sustainability	1	5%

Source: own elaboration.