The El Salvador Municipal Competitiveness Index 2009

Measuring Local Economic Governance to Create a Better Business Environment

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RTI's Chief of Party Dr. Carlos Carcach led the development of the Municipal Competitiveness Index research methodology and the presentation of its analytical findings. Ms. Jennifer Bartlett managed the overall effort, with Mr. Aldo Miranda serving as the key advisor on municipal government and Ms. Ashley Whittredge assisting with project coordination. Also supporting Dr. Carcach in the research effort was ESEN's Economic Research Group faculty. Dr. Edmund Malesky of the University of California, San Diego, the architect of the methodology, which has been employed throughout Asia, oversaw the development of the MCI study and served as a key reviewer.

We would like to thank all members of the project team for their hard work, the numerous stakeholders from both the public and private sectors who informed the survey design, and the thousands of respondents—business owners, mayors, and municipal officials—who took the time to be interviewed about their local business environment and municipal regulations. Furthermore, this study would not have been possible without the support of the Ministry of the Economy; Corporation of Municipalities of the Republic of El Salvador (COMURES); Foundation for Sustainable Development (FUNDES); National Association of Private Businesses (ANEP) and its member associations; Salvadoran Foundation for Economic and Social Development (FUSADES); National Foundation for Development (FUNDE); American Chamber of Commerce; local chapters of the Chambers of Commerce in San Miguel, Santa Ana, and San Vicente; La Libertad Tourism Board; ESEN General Director Rafael Barraza; and USAID/El Salvador Economic Growth Office staff—Project Manager Ms. Sandra Lorena Duarte, Bilateral Team Leader Mr. Carlos Arce, and Director Dr. Lawrence Rubey.

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EXECUTIVE SUMMARY

The U.S. Agency for International Development (USAID), through its Promoting Economic Opportunities Program, supports a research effort called the Municipal Competitiveness Index (MCI) project. Its primary task is to gather baseline data on the business environment at the local level in El Salvador, and conduct an analysis of the results with the goal of identifying administrative and regulatory constraints to private sector development. Additionally, by ranking municipalities against each other, the project aims to create a beneficial spirit of competition to remove the identified impediments. A supportive business environment will enable local governments to attract and retain local and foreign investment, promote trade, take advantage of opportunities from free-trade agreements, and increase economic growth and local employment. The core methodology used to develop the rankings has been employed previously in Asia, where it has proven to be a valuable way to promote dialogue and healthy competition regarding subnational private sector development. RTI International (RTI) leads the MCI project together with Salvadoran research partner Escuela Superior de Economía y Negocios (ESEN). The project began in January 2009; was carried out during the municipal, legislative, and presidential elections; and will conclude in August 2009 following the transition of government.

Uses for the Index Results

RTI, together with ESEN, assessed and ranked the country's 100 most populous municipalities on nine aspects of economic governance. The outcome of their assessment is this report, which is a ranking tool that can be used by municipal and central government leaders, as well as the donor community, to develop local action plans for reform and to identify best practices in Salvadoran municipalities for potential replication in other areas of the country. The business community can also use the MCI results to advocate for improved local and national policies and procedures relating to the private sector.

The MCI study serves several purposes and beneficiaries:

Identify policy and regulatory constraints. Knowing the constraints, municipal, business, and community stakeholders can more easily discuss possible reforms and then take action to carry them out.

Introduce friendly competition. Municipalities with low scores on certain sub-indices can learn from their stronger neighbors; municipalities with high scores can draw attention to their successes by helping to replicate them.

Encourage advocacy. The business community can use the MCI report to identify and advocate for improved policies and procedures.

Inform national and international interests. Central government leaders and the donor community will be able to use the tool to develop action plans for reform and to identify best practices among Salvadoran municipalities for potential replication across the country and the region.

Stimulate further research. Students and scholars of economic development are encouraged to use the MCI analysis and data set for additional research on the topic.

Methodology

Data for the effort were collected through two face-to-face surveys: one targeted at 4,000 business owners of all sizes and sectors, and the other focused on mayors and municipal officials in the 100 project municipalities. Literature and published data on economic development in El Salvador were also reviewed. Nine sub-indices for which data were gathered were selected based on their importance to businesses in El Salvador, level of municipal control over an issue, and variance in performance across the municipalities. The sub-indices selected were: Transparency, Municipal Services, Proactivity, Informal Payments, Public Safety, Time to Compliance, Rates and Taxes, Entry Costs, and Municipal Regulations. Data on these topics were analyzed and combined to create an overall ranking of municipal competitiveness of the local business environment.

Significant Findings

The MCI results revealed a number of interesting findings. Transparency, Municipal Services, Proactivity, and Informal Payments were the main factors underlying municipal competitiveness, as they were the most closely correlated with business success. The results also demonstrated significant variance in the business-enabling environment among municipalities across the country, including within regions and departments. However, in all municipalities, including the top scorers, there is significant room for improvement. In looking at the rankings for each of the nine sub-indices, it is clear that many municipalities that were strong in one area were weak in another. For instance, Conchagua was an Excellent performer in Transparency (7.97) and Proactivity (7.81) but was a Very Low performer in Rates and Taxes (3.23). Finally, the study results indicate that although resource endowments are undeniably an important aspect of competitiveness, they do not directly correlate with a strong business-enabling environment. However, the data show that business-friendly policies and procedures do have positive impacts on local economic development through improvements to the well-being of residents.

Out of all 100 municipalities, Antiguo Cuscatlán emerged as the top-ranking municipality with a score of 7.94 out of 10. La Libertad and Texistepeque rounded out the top three overall scorers.

Dissemination and Sustainability

The MCI provides an opening for constructive dialogues between the public and private sectors at the local level. The last stage of the project is a major dissemination event in San Salvador and a series of three municipal-level workshops at which the results will be presented in a regional context and next steps for generating a better business environment will be discussed with both the public and private sectors. The dialogues are a first step toward establishing a peer-to-peer reformers network, consisting of leaders from municipal government, the private sector, and related associations, with the MCI being used as a tool to improve the business environment in their jurisdictions and advance the decentralization agenda in El Salvador. Ideally, the MCI should be implemented every two years to measure the progress of municipalities toward achieving more business-friendly policies and procedures and to inform and maintain the momentum for reform initiatives. Information about the 2009 MCI and future MCI initiatives can be found at www.municipalindexelsalvador.com or www.indicemunicipalelsalvador.com.

THE MUNICIPAL COMPETITIVENESS INDEX (MCI)

El Salvador's Business Environment

Over the past 20 years, El Salvador has gone through a process of deep economic restructuring that has brought macroeconomic stability and significant improvements in the social and economic well-being of its citizens. In the past several years, the government has catalyzed a number of great improvements to El Salvador's business environment. According to the World Bank's *Doing Business 2009* report, El Salvador ranks 72nd out of 181 economies and is first among the Central American countries. Four years ago it took 115 days and 12 distinct steps to launch a business in El Salvador. Today the process has been reduced to just 17 days and eight steps, with many more businesses registering annually as a result.

The country has also been very successful at reducing the national poverty rate, which decreased by 31% between 1991 and 2007.[1] However, economic growth across the country has not been even, with more than 44.8% of the population in the northern region living below the poverty line.[2] To attract businesses and private investment to municipalities across the country and achieve more even, broad-based economic growth, local governments must modernize their administration of commercial regulations.

El Salvador is organized into 14 departments and 262 municipalities. The latest economic census, conducted in 2005, found a total of 179,817 business operations across the country. Economic activity is heavily concentrated in a few departments, with 73% of all businesses (131,266 firms) located in five departments (San Salvador, La Libertad, Santa Ana, San Miguel, and Sonsonate), and 64% of formal business in San Salvador and La Libertad. The businesses located in these two departments generate 69% of total employment (747,226 jobs) and 76% of paid employment (535,839 jobs).[3] Most businesses are informal—only 17% of businesses (30,206 firms) counted by the census keep formal accounting records.

What is the Municipal Competitiveness Index (MCI)?

A supportive business environment leads to improved living standards, better private sector performance, increased local investment, and more employment opportunities.[4] The MCI is a tool to measure the business-enabling environment at the subnational level within a country. It is an assessment of municipal governments' capacity to create and enforce commercial regulatory policies that stimulate private sector development.

Importantly, it does not measure the total investment environment, typically thought necessary in measures of development potential. Excluding measures of total investment environment, such as initial structural conditions, or resource endowments—such as population size, location, natural resources, and access to markets and skilled labor—allows us to compare municipalities on a level playing field despite very different endowments and stages of development. It focuses on the aspects of the local economy and governance over which municipal governments have equal control, thereby providing information that is actionable by all local governments and can lead to more efficient, productive, and transparent practices across the country. The approach adopted for developing the MCI makes it possible for smaller municipalities to score as well as the country's largest and most economically active ones, such as the municipalities in the departments of San Salvador and La Libertad. In fact, this has been the case with Texistepeque, which received the third highest MCI score this year. Texistepeque is a rural municipality that is located 17 kilometers to the north of the municipality of Santa Ana, with economic activities primarily focused on farming and cattle, and as such was not expected to receive such a high MCI score. The MCI provides information for both the public and private sectors to better understand why some municipalities perform better than others in stimulation of private sector growth, job creation, and economic development. It also helps to identify constraints that need to be

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1 *Evolución del Bienestar en El Salvador, 1991-2007. An analysis based on the National Multipurpose Survey of Households*. Report prepared for the Ministry of the Economy. Author: Carlos Carcach, December 2008, San Salvador.

2 Millennium Challenge Corporation (MCC). *MCC and El Salvador: Partnering to Reduce Poverty Through Growth.* (MCC, May 29, 2009). Available at: http://www.mcc.gov/documents/factsheet-052909-elsalvador.pdf.

3 Many businesses employ family members without pay.

4 Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2002, "The Regulation of Entry," *Quarterly Journal of Economics,* 117, 1-37.

reduced locally and nationally, as well as best practices in high-performing municipalities that can be replicated across the country. By ranking municipalities against each other on a variety of indicators, the MCI creates a beneficial sense of competition among municipalities to improve local policies that spur development.

Methodology

The methodology used to create the MCI has been previously applied in a half-dozen Asian countries, including in Indonesia and Vietnam, where it was also funded by the U.S. Agency for International Development.

In El Salvador, RTI computed the MCI score for each of the most populous 100 municipalities, which accounts for 81% of the population, or approximately 4.6 million people; and 92% of businesses (165,431 firms: micro, 157,977; small, 5969; medium, 695; large, 678). We collected the data used to construct the MCI and component sub-indices through two surveys that were specifically created to fit the El Salvador context. Our team developed both surveys with input from a series of stakeholder meetings, involving business owners, organizations, and municipal officials. The first was a sample survey of 4000 business establishments with a fixed address[5] in each of the 100 most populous municipalities. The second was a survey of mayors and municipal officials in the same 100 municipalities. We also tested both questionnaires with focus groups and with a pilot test group of business owners and municipal officials.

During the collection of municipal data, in eight municipalities, the mayor and/or town officials refused to participate in the study and did not provide municipality survey data. As a result, an alternative data collection measure was developed, whereby an interviewer from the research team posed as a person interested in registering a business and acquired the information necessary directly from those municipalities. Some data for the reluctant municipalities were also collected through official published data sources. The data collection and the MCI methodology are explained in summary form in the abbreviated appendix at the end of this report.[6]

Nine sub-indices were developed to capture different aspects of the municipal-level business environment. The criteria for selecting the sub-indices included importance to businesses in El Salvador, level of municipal influence over the selected issues, and variance on the measures associated with topic among municipalities in El Salvador.

The MCI sub-indices*

1. **Transparency** measures the degree of openness to provide access to information and the predictability of changes to regulations affecting businesses in the municipality.
2. **Municipal Services** measures the quality of services that the municipality provides to the private sector.
3. **Proactivity** measures the level of dynamism of municipal government in developing and promoting initiatives aimed at attracting investment and improving local business conditions.
4. **Informal Payments** measures the magnitude, incidence, and costs of informal payments required to start and operate a business.
5. **Public Safety** measures the impact of crime to business owners and municipalities' ability to prevent and control crime.
6. **Time to Compliance** measures the frequency of inspections in each municipality, and the degree to which they are carried out in an appropriate manner.
7. **Rates and Taxes** measures the amount of local taxes and other charges required to operate a business.
8. **Entry Costs** measures the time costs and ease of registering and beginning operations of a business.
9. **Municipal Regulations** measures the number of regulations imposed on businesses operations.

* The sub-indices are described in greater detail in Table 1 on page 7.

Originally, a Labor Training Sub-Index was intended for inclusion in the calculation of the MCI; however, data collected through the municipal survey were incomplete and the business survey data were inconclusive, so it was dropped.[7] For more information on the MCI methodology, see the abbreviated appendix.

[5] Mobile businesses were excluded from the sample because their availability to be surveyed could not be guaranteed ex-ante.

[6] A more detailed description is found in the full appendix. This document can be downloaded from the project Web site at www.municipalindexelsalvador.com or www.indicemunicipalelsalvador.com.

[7] The business survey data showed that labor training is typically conducted and funded by the private sector or is supported by the central government. Not enough municipal involvement was found to show variance between the municipalities to make it strong enough for inclusion in the MCI.

MCI Overall Ranking

Scores are tallied for each MCI sub-index to determine how municipalities differ along each aspect of the business environment being measured. For each sub-index created, municipalities are ranked on a scale of 1 to 10, where 10 represents the best relative performance and 1 the worst. To create an overall MCI score, the scores from each sub-index are combined and weighted. As a result, the nine sub-indices do not contribute equally to the MCI.[8]

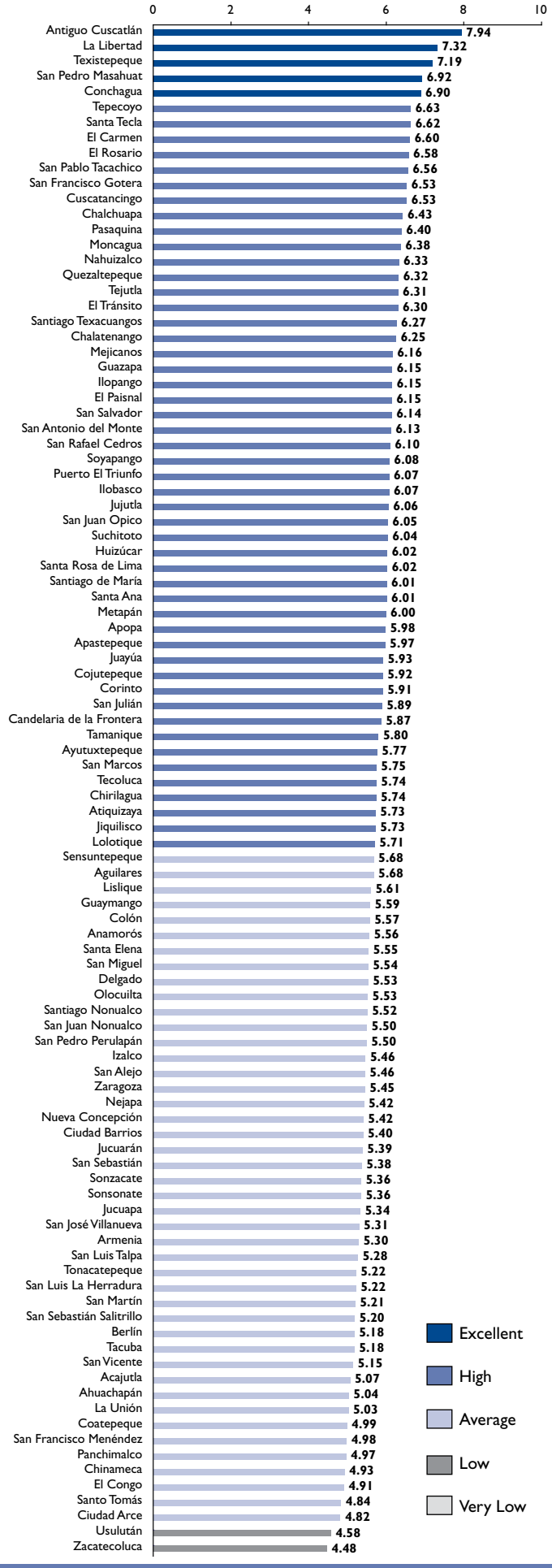
In order to help classify the results, five performance categories were created: Excellent, High, Average, Low, and Very Low. The category ranges, or break points for the categories, were determined by one-point gaps, with the rationale being that in the short term, it is very difficult for a municipality to improve its ranking by one point or more. Each sub-index had its own category ranges.[9]

The overall MCI scores for all 100 municipalities can be seen below in Figure 1. Antiguo Cuscatlán achieved the highest overall MCI score in the country, with 7.94 out of 10 points. The average score[10] across the 100 municipalities was 5.79. The top five municipalities, in the Excellent Performing category, are

Antiguo Cuscatlán	7.94	San Pedro Masahuat	6.92
La Libertad	7.32	Conchagua	6.90
Texistepeque	7.19		

A total of 50 municipalities were in the High Performing category, 43 in the Average Performing category, and only 2 were in the Low Performing range. No municipalities were in the Very Low Performing range for the overall MCI ranking.

Figure 1. Municipal Competitiveness Index for 100 El Salvador Municipalities



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[8] Sub-index weights were as follows: Transparency (15%), Municipal Services (15%), Proactivity (15%), Informal Payments (15%), Public Safety (10%), Time to Compliance (10%), Rates and Taxes (10%), Entry Costs (5%), and Municipal Regulations (5%). These weights were derived from the relative contribution that each sub-index made to the variations in two measures of economic success of local businesses during 2008: the average sales increase and the number of businesses registered in the municipal cadastre.

[9] For instance, Figure 1 shows that Antiguo Cuscatlán recorded the highest score on the MCI (7.94). Municipalities with an MCI score greater than or equal to 6.70 were assigned to the Excellent Performing MCI group. Municipalities with an MCI value between 5.70 and 6.70 were assigned to the High Performing category. Municipalities with scores between 4.70 and 5.70 were assigned to the Average Performing category. Finally, municipalities with an MCI score less than 4.70 were assigned to the Low Performing category. The category ranges, or break points, are different for each of the sub-indices and classify municipalities into five performance groups: Excellent, High, Average, Low, and Very Low. These ranges are specified when the findings for each sub-index are discussed.

[10] Mean scores are used across this study because the MCI and sub-index distributions are fairly symmetric. In this case the mean and the median have similar values.

Table A1 in the abbreviated appendix ranks each municipality by MCI score and shows actual figures for each sub-index.

MCI versus Resource Endowments

Figure 2 shows the resource endowments for each of the 100 municipalities, which include measures of human development, infrastructure, and proximity to major markets. The MCI is measuring a municipality's competitiveness independent of its endowments. The MCI's purpose is to construct an index that focuses on actionable items that local governments can undertake to improve the business environment.

Three variables representing resource endowment were used to create Figure 2, and are controlled for in the MCI calculations. They are:

1. Local development as measured by the Human Development Index (HDI) (United Nations Development Programme, 2006);
2. Initial infrastructure endowment as measured by the number of phones per 100 households according to the 2007 Census of Population and Housing (Censos de El Salvador, 2008); and
3. Proximity to markets as measured by the distance in kilometers from the municipality seat to the city of San Salvador.

The resource endowment data confirm that the municipalities located in the San Salvador Metropolitan Area dominate the measures. In particular, Antiguo Cuscatlán ranks the highest because of a higher HDI, followed by Santa Tecla and San Salvador. These three municipalities, together with the rest of the municipalities of the San Salvador Metropolitan Area, Santa Ana, and San Miguel, account for more than 50% of the total number of businesses in the country. It is obvious that resource endowments are important for investment decisions. However, for the purposes of this study, the key question is: How can good economic policy, regulations, and administration spur private sector growth beyond the structural conditions of municipalities?

Figure 2. Municipal Resource Endowments

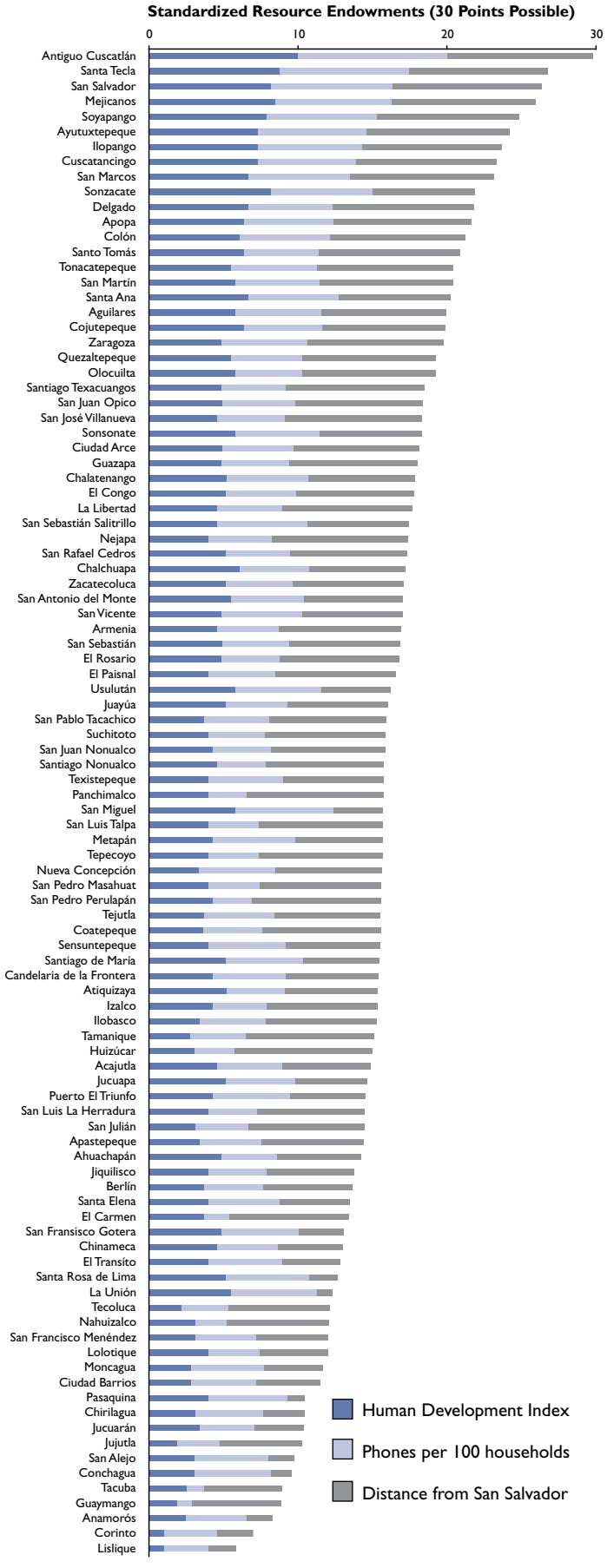
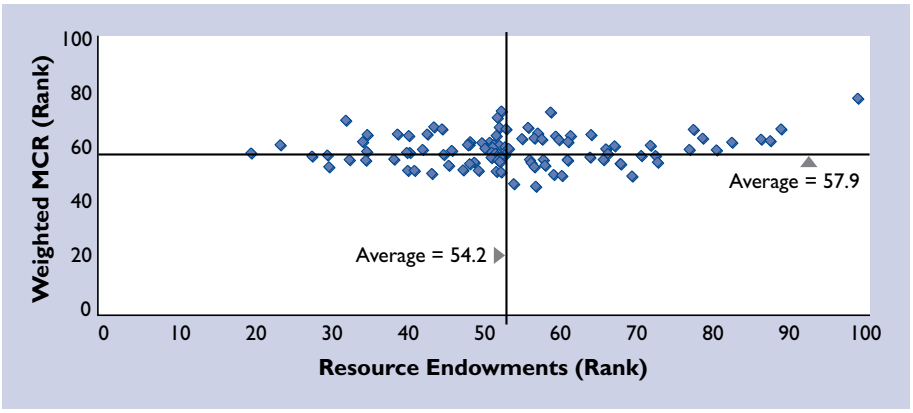


Figure 3 further illustrates the difference between resource endowments and an enabling business environment, and shows that the former does not necessarily lead to the latter. Twenty-five municipalities with above-average MCI scores recorded below-average values on the resource endowments index. This result suggests that local governments' efforts to foster conditions leading to a favorable business climate go far beyond the resource endowments that may have an influence, either positive or negative, on the capacity of local governments to promote development. Figure 3 shows the distribution of municipalities according to the MCI and the index of resource endowments.

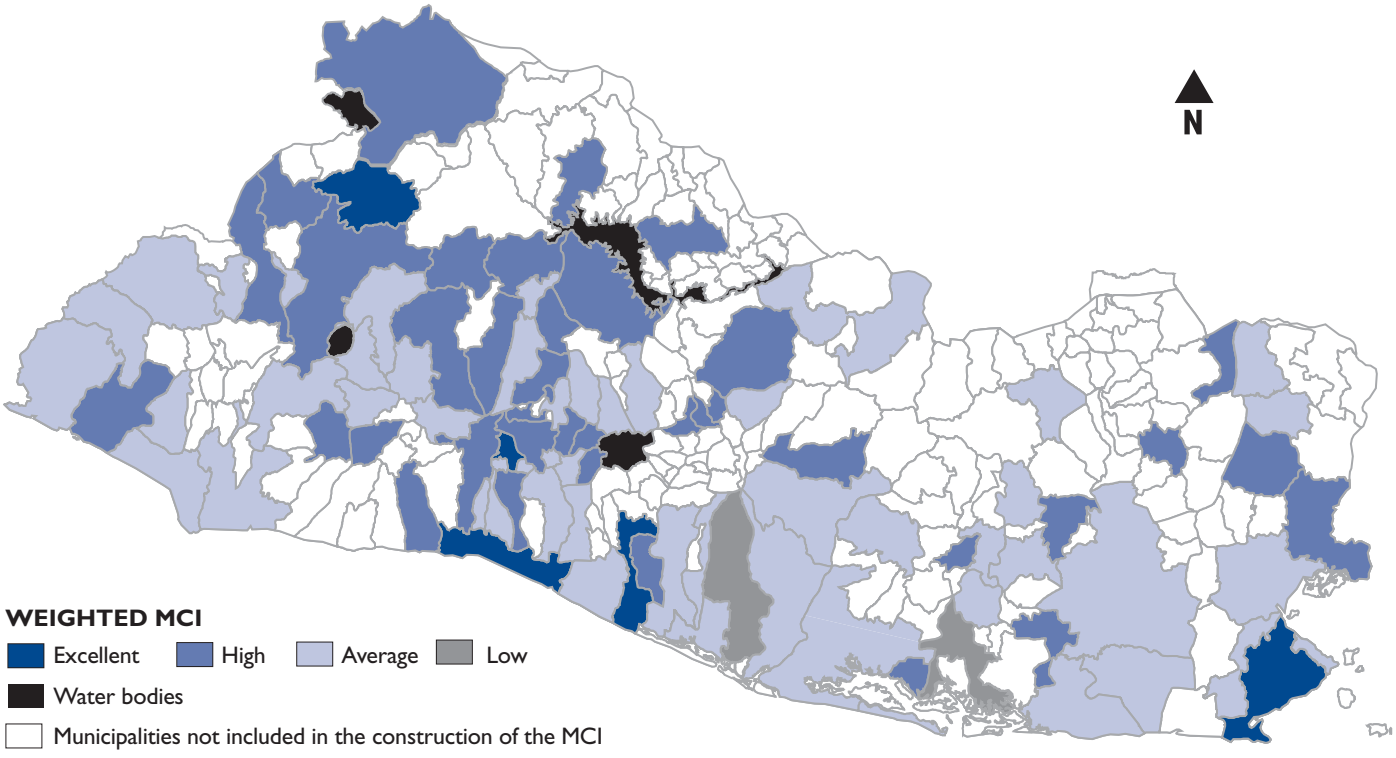
Figure 3. Distribution of Municipalities by Weighted MCI and Resource Endowments



Regional Distribution of MCI Scores

Figure 4 shows the geographical distribution of the MCI scores. The municipalities with an MCI score of 6.70 and greater were classified as Excellent Performers and are highlighted in dark blue. Those with an MCI score between 5.70 and 6.70 were classified in the High Performing category and are shown in medium blue. Light blue municipalities are in the Average Performing category, scoring between 4.70 and 5.70. Finally, municipalities highlighted in dark gray are in the Low Performing category, with MCI scores below 4.70. There is also a category for Very Low Performing municipalities. No municipality fell into this category for the overall MCI scores; however, many did in the individual sub-index rankings.

Figure 4. Regional Distribution of MCI Scores



Sub-Index Results

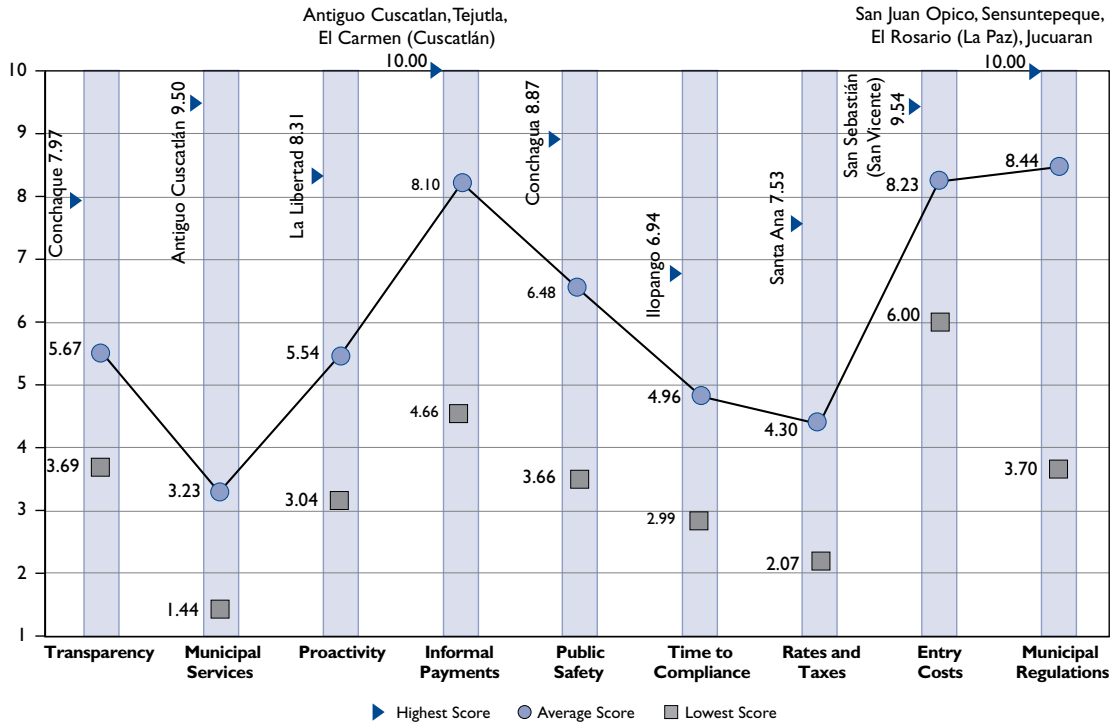
Figure 5 illustrates that not all of the sub-indices have the same impact on local competitiveness and not all municipalities perform equally across all sub-indices, as can be seen in the varying top, average, and low scores across each sub-index. The top-ranking municipality is also named at the top of each sub-index. As with the overall MCI scores, the sub-indices are calculated on a 1-to-10 scale, where 10 represents the best score and 1 is the worst. A score of 10 does not necessarily indicate a perfect performance by a municipality on a particular sub-index. The transformed scale assigns a value of 10 to the municipality with the best average value for the set of indicators included in the calculation of a sub-index.[11]

The Transparency, Municipal Services, Proactivity, and Informal Payments sub-indices appeared as the main factors underlying municipal competitiveness,[12] as they were the most closely correlated with local business success.[13] These sub-indices were followed by Public Safety, Time to Compliance, and Rates and Taxes with regard to their influence in the MCI scores. Entry Costs and Municipal Regulations explained the remaining part of municipal competitiveness.[14]

With the exception of the sub-indices of Informal Payments, Entry Costs, and Municipal Regulations, the remaining measures of competitiveness recorded relatively low average values. This result suggests that opportunities for improvement exist across all areas of municipal competitiveness, and across all municipalities. Municipal Services recorded the poorest overall performance with an average of just 3.23. Rates and Taxes and Time to Compliance also had low average scores of 4.30 and 4.96, respectively.

A number of indicators were used to compute the sub-indices. These are described in Table 1.

Figure 5. Components of the Municipal Competitiveness Index



[11] For example, Figure 5 shows San Juan Opico, Sensuntepeque, El Rosario (La Paz), and Jucuarán with a score of 10 for the Municipal Regulations Sub-Index. These municipalities recorded the lowest values for each of the two indicators for the sub-index: 0.0% for the percent of businesses that perceived that the number of municipal regulations had increased during 2008, and 0.0% for the percent of businesses that perceived that the number of regulations was above normal compared to neighboring municipalities.

[12] The results of a factor analysis shown in the full appendix (available at: www.municipalindexelsalvador.com or www.indicemunicipalelsalvador.com) indicate that Transparency, Municipal Services, Proactivity, and Informal Payments contributed 48% to the total competitiveness of a municipality. Public Safety, Time to Compliance, and Rates and Taxes explained 27%, and Entry Costs, together with Municipal Regulations, explained the remaining 25% of local competitiveness.

[13] Business success was calculated with 2008 figures for average sales increase and number of businesses registered with municipalities.

[14] View the full appendix for the regression analysis.

Table 1. Indicators Used in Sub-Indices

TRANSPARENCY
% Businesses not affected by municipal support to informal sector
% Businesses think municipality does not favor businesses owned by people belonging to the mayor's party
% Businesses think municipality does not favor large businesses and does not discriminate against small businesses
% Businesses knowing about the existence of processes for filing complaints or making recommendations
% Businesses knowing about the existence of processes for informing citizens about local issues
% Businesses perceiving that municipal policies are applied in a consistent manner
% Businesses perceiving that relationships are important for gaining access to documents and/or obtaining permits/licenses
% Businesses gaining easy access to local documents
% Businesses perceiving that changes to rates/taxes and regulations are predictable
% Businesses perceiving municipal tenders as transparent
MUNICIPAL SERVICES
% Businesses qualifying municipality as good at controlling informal commerce
% Businesses qualifying municipality as good at doing public works during 2007–2008
% Businesses qualifying municipality as good at providing facilities for administrative procedures
% Businesses qualifying municipality as good at providing facilities for tax payments
% Businesses qualifying municipality as good at crime prevention and control
% Businesses qualifying municipality as good at developing labor and entrepreneurship programs
% Businesses qualifying municipality as good at promoting tourism
% Businesses qualifying municipality as good at promoting business opportunities
% Businesses qualifying municipality as good at promoting and supporting local business associations
% Businesses qualifying municipality as good at providing services to attract investors and clients
% Businesses qualifying municipality as good at providing services to facilitate access to credit by local business
% Businesses qualifying municipality as good at export promotion
PROACTIVITY
% Businesses perceiving that municipality works actively to solve business problems
% Businesses perceiving that municipality has good initiatives, but these are blocked by central government
% Businesses perceiving that not all private-sector related policies come from the central government

INFORMAL PAYMENTS
% Businesses feeling informal payments are a common occurrence
% Businesses think informal payments do help in gaining access to municipal documents or in obtaining permits/licenses
% Businesses feeling tenders are fair
% Businesses perceiving extra tax payments are a common occurrence in the municipality
% Businesses have made extra payments to fix municipal tax problems
PUBLIC SAFETY
% Businesses saying that crime was higher in 2008 compared to 2007
% Businesses perceiving that crime has increased due to bad municipality work
% Businesses perceiving that crime has decreased due to good municipality work
Municipal spending on public safety per capita (US$)
% Businesses victimized during 2008—robbery or theft
% Businesses perceiving that local crime is higher than in neighboring municipalities
Cost of crime to businesses per US$1,000 sale increase in 2008
% Businesses victimized during 2008—extortion or kidnapping
TIME TO COMPLIANCE
% Businesses inspected in 2008
Number of inspections per 100 businesses
% Businesses feeling the number of inspections is above normal
% Businesses feeling municipal inspectors act fairly
% Businesses feeling the municipality adequately ensures compliance
RATES AND TAXES
% Businesses feeling that local taxes are higher than in neighboring municipalities
Number of incentives per 100 businesses
Municipality offers tax advantages
Tax revenue standardized by municipal services
ENTRY COSTS
Effective wait for business premises (days)
Length of wait for other business-related permits (days)
% Businesses waiting over ONE month to obtain permits to start operations
% Businesses waiting over THREE months to obtain permits to start operations
% Businesses having problems with obtaining permits/licenses to start operations
% Businesses finding it difficult to obtain information on necessary procedures/documents
Total number of documents required to obtain permit for operations
Time to issue permits to operate (days)
MUNICIPAL REGULATIONS
% Businesses that feel the number of municipal regulations increased during 2008
% Businesses that feel the number of municipal regulations is above normal, compared to neighboring municipalities

Figure 6 contains star graphs showing the performance of all 100 municipalities on each of the nine sub-indices. The shaded area for each sub-index indicates the score obtained in that area.

Figure 6. Municipal Performance, by Nine Sub-Indices

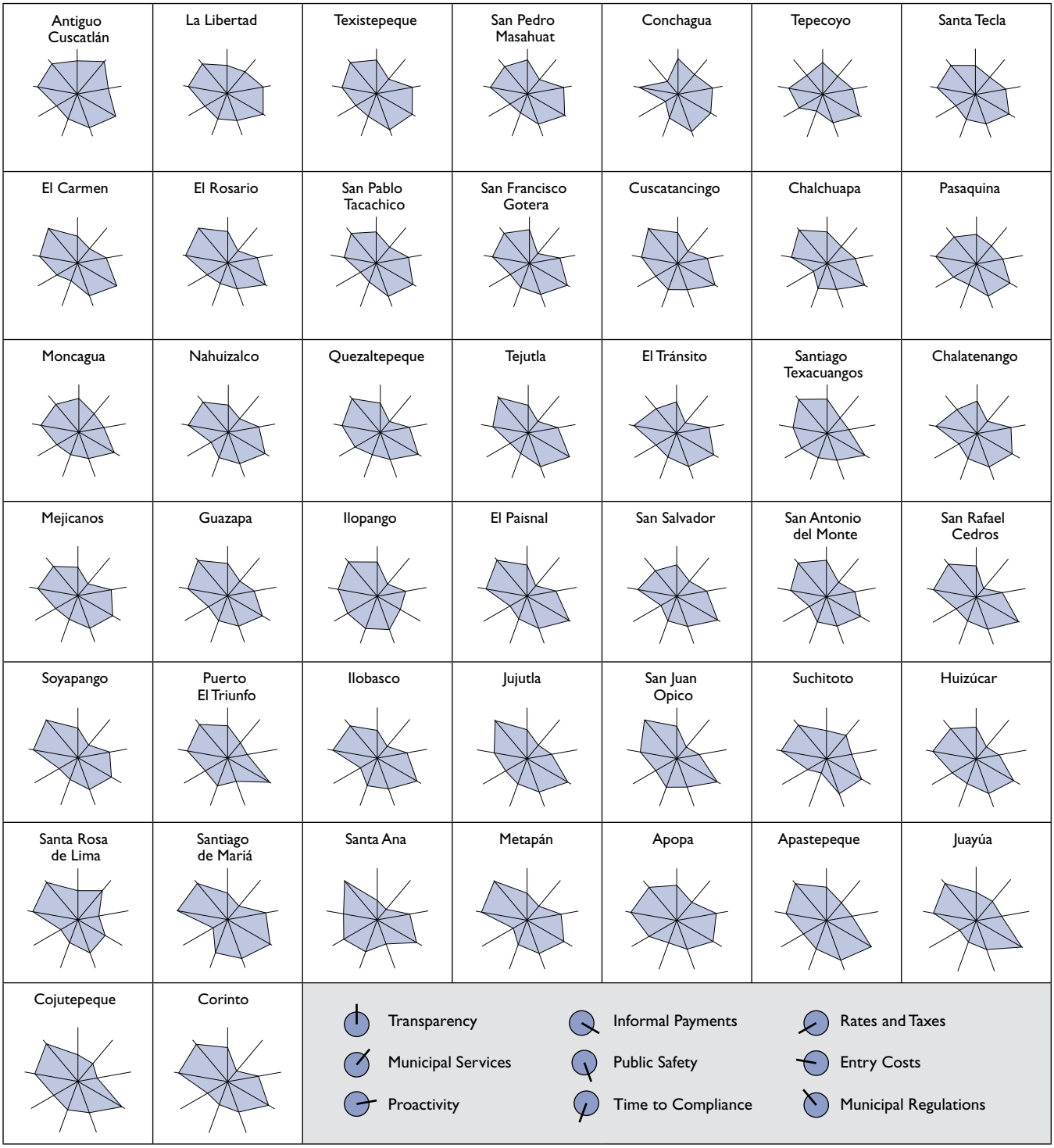


Figure 6. Municipal Performance, by Nine Sub-Indices (continued)

Transparency

Transparency is one of the most crucial factors in identifying environments that promote local investment.[15] It is closely linked to both corruption and accountability. Transparency allows businesses to plan their strategy and operations by providing access to accurate information on administrative processes, procedures, and decisions affecting businesses. This sub-index assesses how municipalities differ in their openness to provide information to the private sector that is relevant to the operation of local businesses and in the predictability of applying or changing those regulations and procedures. The sub-index was constructed from business survey data. It includes measures for access to information and documents relevant to local businesses, knowledge among businesses of processes to file complaints, predictability of municipal policies, and discrimination based on party affiliation or business size. The higher the value of the sub-index, the more transparent a municipality is perceived by the private sector.

Notable Advances in Transparency in San Pedro Masahuat

San Pedro Masahuat has a Municipal Information Center that is open to the public, where anyone can consult the ordinances, plans, budgets, project status reports, and reports about budget closeouts for the years 2007 and 2008. Also, the municipality has instituted several other means of delivering information to the citizens. Once a year, during the first 60 calendar days, members of the Municipal Council organize and convene a public meeting with representatives from all the communities in the interest of accountability and to inform them about the principal management results from the past fiscal year, emphasizing the details of projects and expenditures. Afterward, a summary of that information is prepared in an annual bulletin on accountability to citizens. Moreover, every quarter the mayor tours the community assemblies in villages where they are carrying out or have planned a project. Also, a wall display on municipal activities and the newspaper *New Image, the Citizens' Voice*—a publication with national circulation that specializes in municipal development—are used monthly as a channel for disseminating brief notices about activities the local government has carried out.

The average value of the Transparency Sub-Index was 5.67. Conchagua was the most transparent municipality, with a score of 7.97. Figure 7 on page 14 shows Transparency Sub-Index scores by municipality, with bars colored according to performance category: Excellent Performing (dark blue), High Performing (medium blue), Average Performing (light blue), Low Performing (dark gray), and Very Low Performing (light gray).

Municipal Services

The Municipal Code delegates a broad set of authorities and responsibilities to the municipalities. Title 3, Unique Chapter, of the Code describes 30 types of competencies for municipalities, although in reality few municipalities currently address the majority of them. Services relevant to the business sector, and included in our measurement of this sub-index, are traditional services, such as administration and public works, as well as those that are noted in the Municipal Code but less widely implemented such as attracting investment, promoting tourism, and improving access to credit for businesses. The Municipal Services Sub-Index measures differences across municipalities in the quality of the services they provide to the private sector. The sub-index

Suchitoto: A Good Model for Municipal Services

A restaurant owner and tour operator notes: "Religiously, every day, squadrons of street sweepers pass by, cleaning and sweeping the entire town. You only have to look around you to see the relative lack of garbage accumulated in the streets, gutters, plaza, and parks, which is such a prominent characteristic of the urban landscape in the rest of the country. At the same time, residential trash collection is good and very advanced. They don't just collect garbage every day; they also have managed to educate the citizens and institutionalize the practice of separating organic waste, glass, plastic, and cans. In a similar manner, the city has installed and operates a sanitary landfill to manage solid waste; wastewater from urban households is processed in a treatment plant, thereby avoiding the problem of environmental pollution from untreated wastewater dumped into the lake. Moreover, the municipality does a good job maintaining and repairing the pavement on city streets. All of the above have contributed to the efforts to make Suchitoto a national and international tourist destination."

[15] 2009 Index of Economic Freedom, http://www.heritage.org/Index/pdf/Index09Full.pdf

was constructed from the business survey on firms' perceptions of the quality of business-oriented services provided by municipalities. A higher value of the sub-index means that businesses perceive a municipality as providing good-quality services to the private sector.

Antiguo Cuscatlán was the only municipality that achieved the Excellent Performing ranking on this sub-index. A total of 84 municipalities were perceived as Low or Very Low Performing based on the quality of services they provide to the private sector. These results reveal that providing good-quality services to the private sector is an area with significant room for improvement by local governments.

The average value of the Municipal Services Sub-Index was 3.23. Antiguo Cuscatlán had the highest value with 9.50. Figure 8 on page 14 shows the scores by municipality, with bars colored according to their performance classification, just as with the Transparency Sub-Index.

Proactivity

Proactivity is defined in this study as the extent to which the mayor and the municipal council are actively involved in promoting initiatives to attract investment and improve conditions associated with operating local businesses. These are activities that fall outside of the requirements of the Municipal Code but that are undertaken by the local government to spur economic development. The Proactivity Sub-Index was constructed from the business survey data on the perceptions of the number and quality of business-oriented initiatives developed and implemented by the municipality, rather than by the central government. A higher value of the sub-index means that businesses perceive a municipality as having a high level of proactivity.

The Proactivity Sub-Index had an average value of 5.54, with the municipality of La Libertad achieving the highest score of 8.31. Figure 9 on page 15 shows the value of the Proactivity Sub-Index by municipality, with bars shaded according to performance classification.

Proactivity Initiatives in Tepecoyo and La Libertad

Tepecoyo implemented the Micro-Enterprises Support Program and the Strengthening for Rural Development Program, and instituted a tourism committee with the help of various nongovernmental organizations.

In La Libertad, the municipality actively promoted a Tourism Committee, supported by the Ministry of Tourism. The Committee attends tourism fairs and other events to highlight the attractions in La Libertad. The municipality also coordinates with the Committee to organize regular beach-cleaning campaigns.

Informal Payments

This sub-index aims to assess how municipalities differ in terms of business perceptions on their need to make informal payments to obtain permits, licenses, or other information relevant to local tenders or local economic development. The sub-index was constructed from the business survey to measure the prevalence, incidence, and associated costs of informal payments when businesses applied for permits and licenses in the course of their operation within a municipality. A higher value of the sub-index means that the business sector perceives a municipality as having lower prevalence and incidence of problems related to informal payments.

The Informal Payments Sub-Index had an average value of 8.10, which suggests that in general, the business community perceives that municipalities are performing well on this sub-index. Antiguo Cuscatlán, El Carmen, Tejutla, Lolotique, and Juayúa were the municipalities with the top scores. Figure 10 on page 15 shows the value for the performance classification.

Public Safety

El Salvador is one of the most violent countries in the world. In 2008, there were 3,179 murders,[16] and the country had a murder rate of 51.8 per 100,000 inhabitants.[17] Such a lack of basic security imposes enormous costs on the Salvadoran economy and scares away investment. According to a study by El Salvador's National Public Security Council, the violence cost the country US$2 billion in 2006—nearly 11% of gross domestic product (GDP).[18] Crime and safety

[16] Official data released by Fiscalía General de la República, Policía Nacional Civil, and Instituto de Medicina Legal.

[17] Rate based on the official projected population for 2008 (Ministerio de Economía, Dirección General de Estadística y Censos, July 2009).

[18] Carlos Acevedo, "Los costos económicos de la violencia en Centroamérica [The economic costs of violence in Central America]," Consejo Nacional de Seguridad Pública de El Salvador, 2008, p. 14, http://www.ocavi.com/docs_files/file_538.pdf.

are factors that must be considered in any assessment of the competitiveness of municipalities in attracting and retaining investment. Crimes such as homicide, extortion, kidnapping, forced abduction, theft and robbery on business premises, and theft and robbery of goods in transit, have direct and salient effects on business activity.

The Public Safety Sub-Index assesses differences across municipalities in the experiences of local businesses with crime and their perceptions on whether local crime rates are higher than in neighboring municipalities, whether local crime has increased or decreased, and whether such a change is caused by the municipality taking actions to control and prevent crime. This sub-index also captured municipal spending levels on crime prevention initiatives in 2008. A higher value of the sub-index means that a municipality is seen as having a lower level of crime.[19]

The average value of the Public Safety Sub-Index was 6.48. Conchagua had the highest value at 8.87, which made it the municipality with the lowest crime-related costs to businesses. Figure 11 on page 16 shows the Public Safety Sub-Index scores by municipality, with bars shaded according to performance classification.

Public Safety in Antiguo Cuscatlán and Santa Tecla

Antiguo Cuscatlán instituted coordinated patrols between the municipal and national police and has developed a public safety plan. The public safety system is composed of joint scooter and bicycle patrols.

Santa Tecla created a public safety commission comprising citizens and central government representatives to jointly tackle public safety issues. It also created a municipal crime observatory to tally crime statistics in order to make more informed decisions and conduct regular training sessions for the municipal police on specific topics, such as the Criminal Conduct Law (Ley Contravencional). Santa Tecla has also developed agreements with universities to help students engage in local social service activities.

[19] The perceptions of and experiences with crime of local businesses recorded in the business survey do not necessarily match the official crime rates because only a small portion of all thefts, robberies, extortions, and kidnappings are reported to the police.

Time to Compliance

When business owners and managers attend to bureaucratic issues such as inspections and other regulations, it reduces the amount of time they can devote to more productive activities that relate directly to the actual operation of their businesses. The Compliance Sub-Index assesses how municipalities differ in the frequency, efficiencies, and fairness of conducting local business inspections. This includes the ease of working with municipal officials, their compliance with laws and regulations, and the appropriateness and number of inspections required for compliance. The sub-index was constructed from business survey data because no municipal survey data could be collected on this issue. A high sub-index value indicates that local businesses require less time to comply with municipal rules. The fact that no municipality fell into the Excellent Performing category is noteworthy.

This average value for the Time to Compliance Sub-Index was 4.96. Ilopango was the municipality with the top score of 6.94. Figure 12 on page 16 shows the value of the Compliance Sub-Index by municipality, with bars shaded according to performance classification.

Rates and Taxes

Rates and taxes are a major source of municipal resources and determine the capacity of any local government to provide quality services to the general population and the business sector. Some municipalities may charge higher taxes or have higher rates than other municipalities within their geographic area, but they also may provide

Pawnshop Reports Reasonable Rates and Taxes in Cuscatancingo

"We decided to open a branch of our pawn shop here, for several reasons. According to a poll, people have to travel to Mejicanos to pawn something. In addition, we were able to obtain a location in the middle of the main street, where there is a high level of foot traffic each day. This gives us a lot of exposure and visibility to potential clients. Moreover, the anticipated cost of applicable municipal taxes and fees—estimated at about US$18 per month—will not prevent investment or be detrimental to the business, given the volume of sales that is expected. They are about the same as those charged in San Martín, where our headquarters is."

more and/or better quality services. High taxes that are not matched by good provision of services may place municipalities at a relative disadvantage when they try to attract investment. In addition, the difference in rates and taxes influences the distribution of investment and general economic activity across municipalities.

The Rates and Taxes Sub-Index assesses differences in the experiences of local businesses with tax payments. It also examines businesses' perceptions on whether local taxes are higher than in neighboring municipalities, whether any advantages are offered by the local tax structure, and whether measures are taken by the municipalities to collect tax payments on time. Also, the sub-index captures the efficacy of local tax revenue in terms of services provided. In addition to the business survey, data from the municipality survey were used to create this sub-index, in order to capture any advantages offered by the local tax structure, as well as local government incentives that inspire businesses to pay their taxes on time; and to measure tax revenue adjusted for the services. A higher sub-index value means a municipality is providing a greater fiscal advantage to businesses.

This sub-index had an average value of 4.30 with Santa Ana recording the highest value of 7.53. Figure 13 on page 17 shows the value of the Rates and Taxes Sub-Index by municipality, with bars shaded according to performance classification.

Entry Costs

The Entry Costs sub-index assesses the differences in entry costs to new firms across municipalities. A new firm was defined as one that had started operations since 2006 within a municipality. The sub-index was constructed from the business survey, supplemented with data obtained directly from the municipalities, to capture the perceived difficulties specific to the business registration and licensing procedures that take place within municipalities. Included are the actual wait in days for approval of all required permits as recorded by the municipalities, the perception of business owners on the length of time required for the process, ease of obtaining both the information on the process and the actual permits, and the number of documents required for the process.

Entry Costs No Problem for San Rafael Cedros Bakery

"When we opened in November 2007, the municipality was gracious enough to allow us a 'test month,' without charging taxes or fees, to give us the opportunity to find out whether we could sell enough to make a bread business feasible. After the end of the test period, we went to the cadastre office to register the business. Two days later, after the appropriate inspections, we received our business classification and were assigned an amount of fees and taxes to pay monthly. There was not a single problem or delay in starting up our operations."

The average value of this sub-index was 8.23, with San Sebastián (San Vicente) municipality receiving the highest score of 9.54, making it the municipality with the lowest cost of entry for a business. Figure 14 on page 17 shows the value of the Entry Cost Sub-Index by municipality, with bars shaded according to performance classification.

Municipal Regulations

This sub-index measures how municipalities differ in terms of business perceptions on the number of regulations imposed on businesses to operate. The sub-index was constructed from the business survey to measure the number of regulations, whether this number had increased or decreased during 2008, and whether the municipality had put in place adequate mechanisms to ensure compliance with regulations on local businesses. A high value of the sub-index indicates the municipality successfully promotes investment through a business-friendly regulatory framework.

The Municipal Regulations Sub-Index had an average value of 8.44. San Juan Opico, Sensuntepeque, El Rosario (La Paz), and Jucuarán were the best performing of the 100 municipalities, all with a score of 10.00. Figure 15 on page 18 shows the value of the Municipal Regulations Sub-Index by municipality, with bars shaded according to performance classification.

On the following pages, Figures 7 through 15 display the scores on all nine sub-indices for the 100 assessed municipalities. Municipalities with the highest scores appear at the top of each graph. Color coding indicates the groupings into Excellent, High, Average, Low, and Very Low scores:

Excellent High Average Low Very Low

Figure 7. Transparency Sub-Index

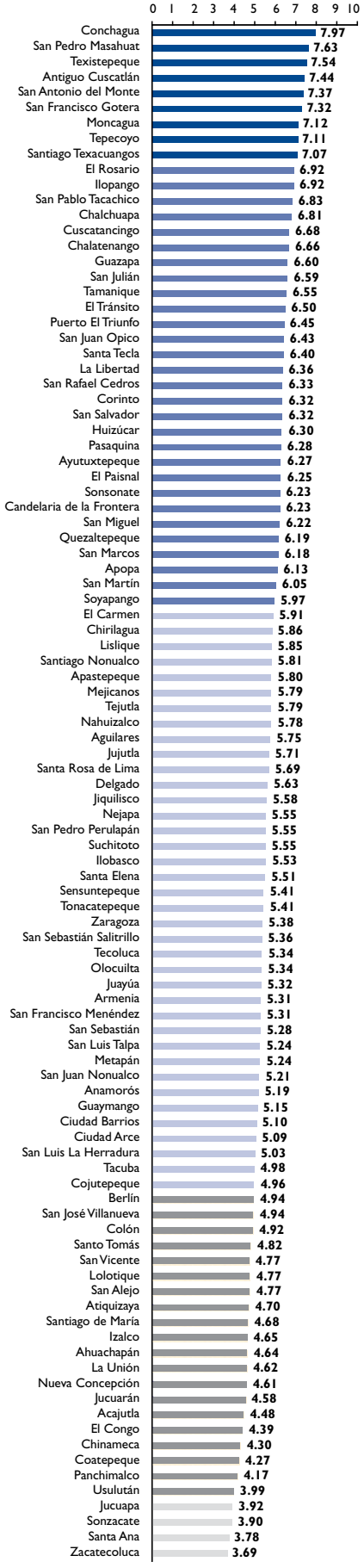


Figure 8. Municipal Services Sub-Index

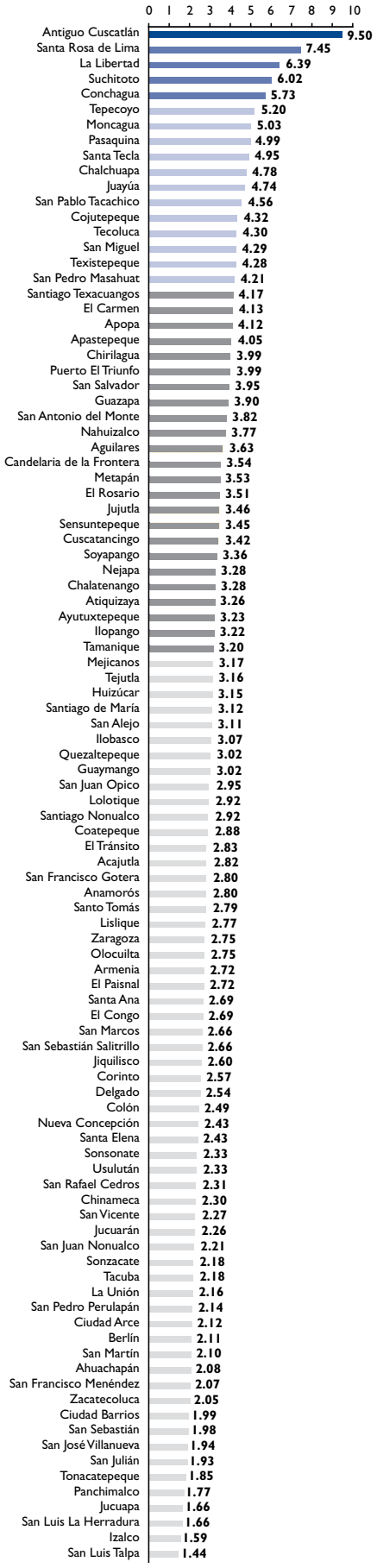


Figure 9. Proactivity Sub-Index

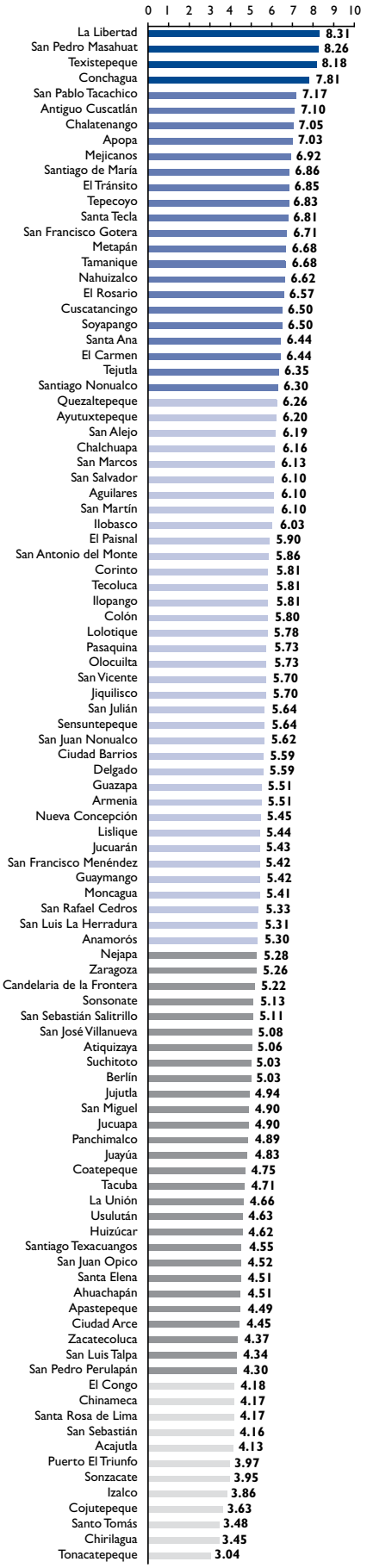


Figure 10. Informal Payments Sub-Index

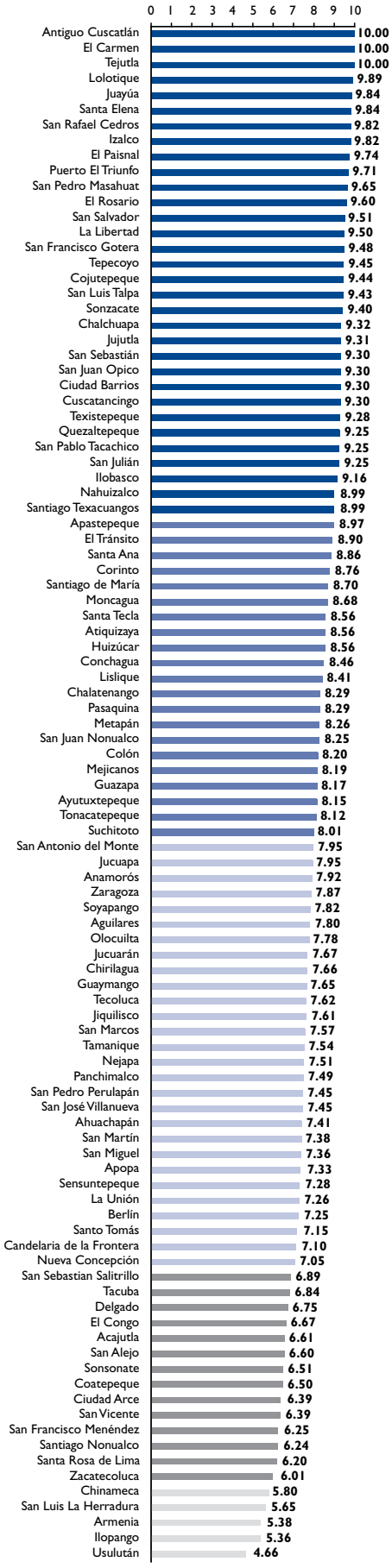


Figure 11. Public Safety Sub-Index

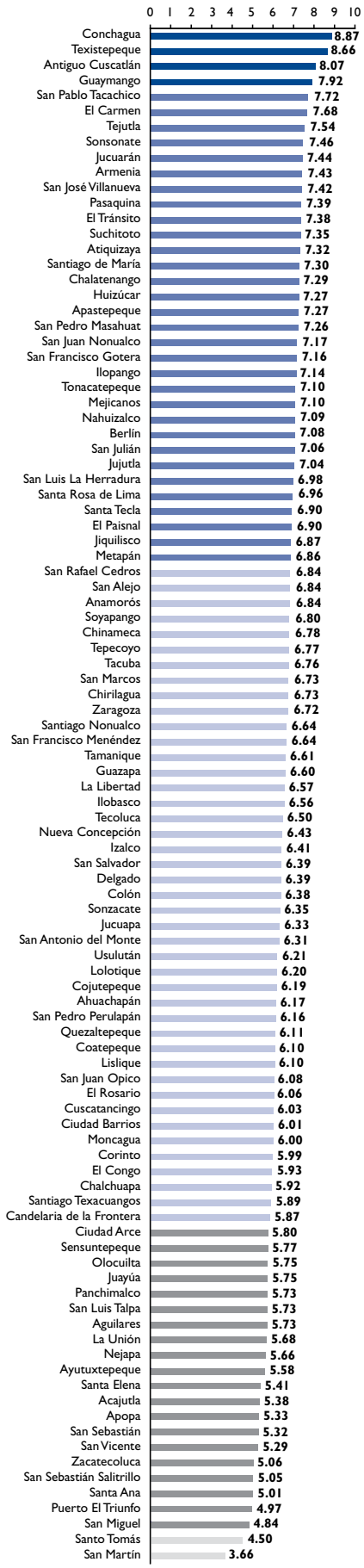


Figure 12. Time to Compliance Sub-Index

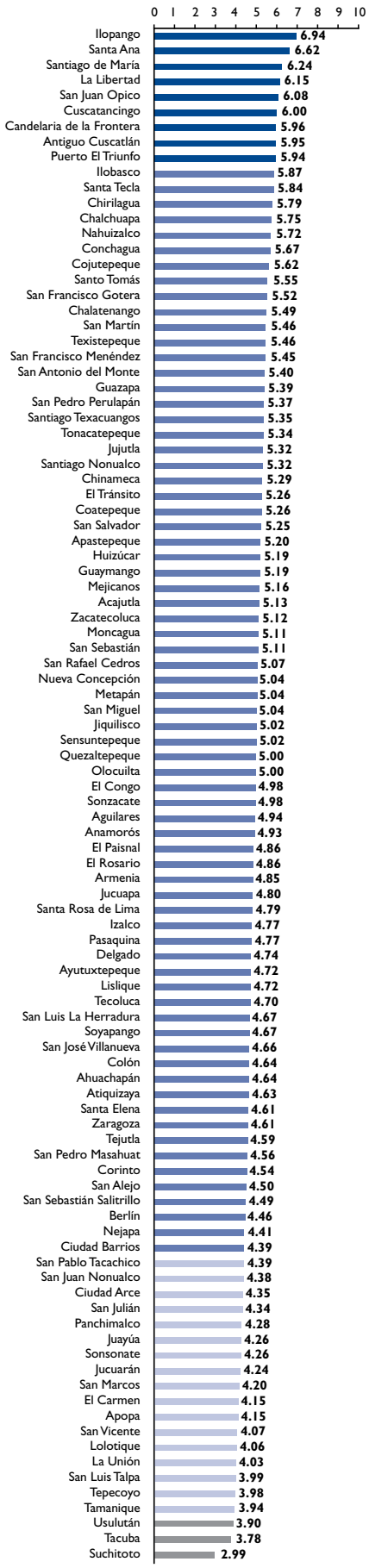


Figure 13. Rates and Taxes Sub-Index

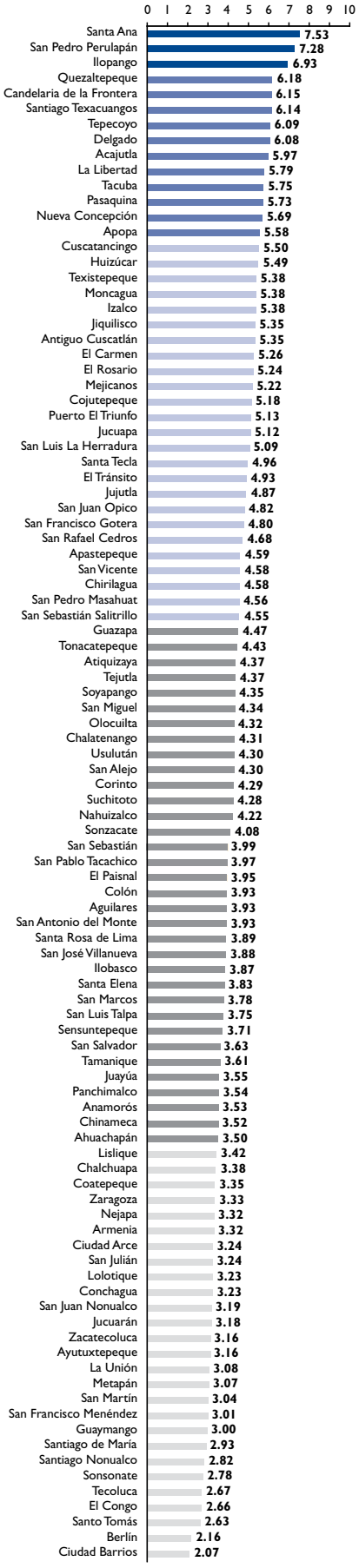


Figure 14. Entry Costs Sub-Index

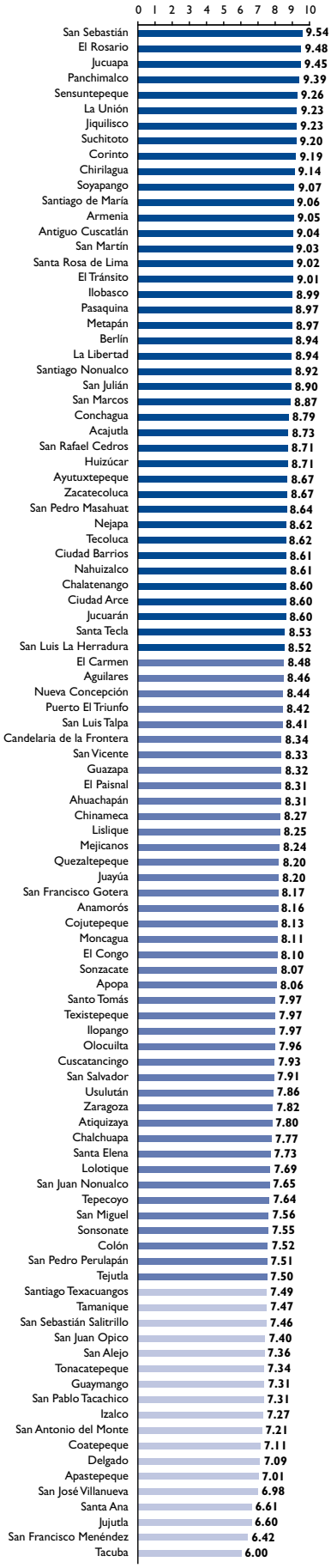
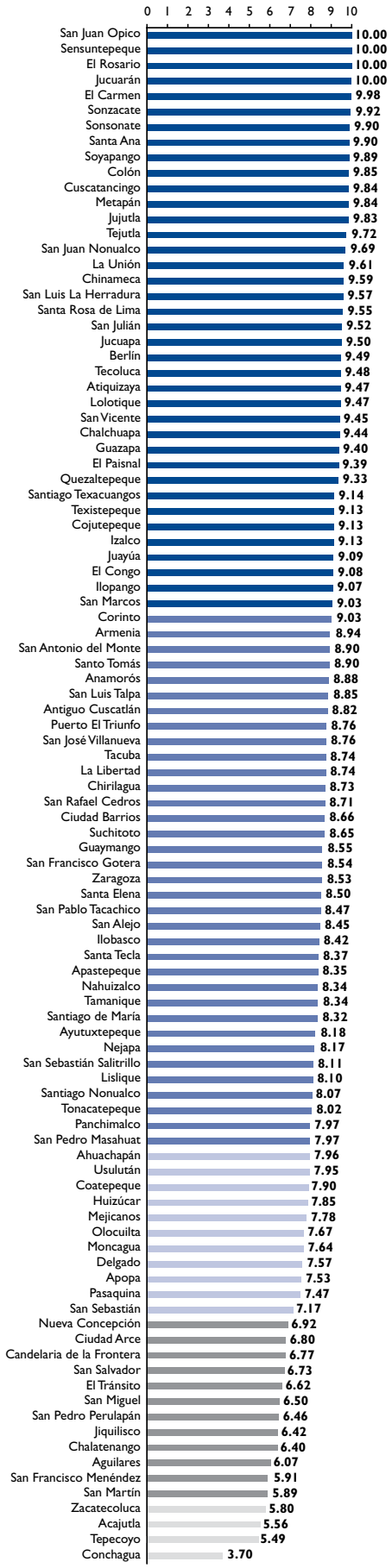


Figure 15. Municipal Regulations Sub-Index



Conclusions and Policy Implications

The MCI is a first effort to assess and rank the 100 most-populated municipalities in El Salvador on their regulatory and business-enabling environment to generate private sector development. As such, it can be considered as a baseline from which a sustained measurement effort can be implemented to attract and retain local and foreign investment, promote trade, take advantage of opportunities from free-trade agreements, and increase economic growth and local employment.

Analysis of the MCI results reveals three main findings that could have important policy implications.

1. A business-enabling environment does not directly correlate with resource endowments in El Salvador, and business-friendly policies and procedures have positive impacts on local economic development through improvements to the well-being of residents.

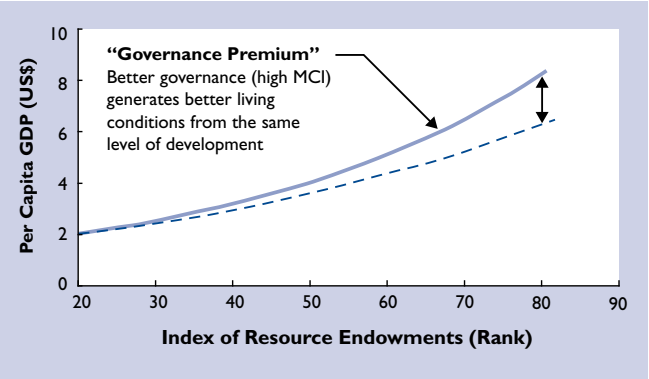
2. All municipalities, no matter how high their scores, have room for improvements that could lead to a large impact on business development and employment. Improvements in a few areas, however, have been shown to be particularly beneficial to private sector performance.

3. The business environment differs greatly across the country, including within departments and regions. Municipalities can look to their neighbors for examples of best practices to adapt and implement to increase their own MCI scores.

The Governance Premium

The MCI demonstrates that although resource endowments are undeniably an important aspect of competitiveness, they do not directly correlate with a strong business-enabling environment. An analysis of the MCI data shows that business-friendly policies and procedures have positive impacts on local economic development through improvements to the well-being of residents. Figure 16 illustrates that municipalities with high unweighted MCI scores have a higher standard of living at every level of resource endowments. After initial endowments have been controlled for—which means that wealthy and resource-poor municipalities are on the same footing—a one-point increase in the unweighted MCI generates a differential of

Figure 16. Unweighted MCI Performance and Economic Welfare



7% in per capita GDP in favor of high-performing municipalities.[20] The gap between the two curves can be interpreted as a measure of the net economic gain of good governance or a "Governance Premium." This means that at every level of initial resource conditions, better-managed municipalities are more effective at using their natural endowments and realize a higher level of economic well-being. Better governance leads to increased private sector investment, which in turn can generate local employment and additional tax income for municipalities. Increased employment also results in more consumption, which can attract further investment. The graph also shows that these gains increase as the municipality becomes more developed.

Prioritizing Areas for Improvement

All municipalities, no matter how high their scores, have room for improvement, which could lead to increased business development and employment. However, advances in a few areas could be particularly beneficial. Of the nine sub-indices assessed, Transparency, Municipal Services, Proactivity, and Informal Payments appeared to be the main factors underlying municipal competitiveness, as defined by the MCI.[21] These four sub-indices had a weight of 15% in the final MCI. The sub-indices of Public Safety, Time to Compliance, and Rates and Taxes had a weight of 10% each. The remaining sub-indices, Entry Costs and Municipal Regulations, had a weight of 5% each.

The MCI enables local governments to understand how the private sector perceives its municipality's relative strengths and weaknesses across several governance dimensions. Our findings indicate that local businesses assign a high value to practices and initiatives by municipal governments that facilitate access to information, promote integrity and honesty among their officers, create opportunities to develop new investments, support local businesses in attracting new clients, and facilitate access to financial resources. Each of these activities is related to municipalities being transparent and proactive providers of high-quality services to the private sector.

Initiatives aimed at improving MCI scores have the potential to generate significant gains in private sector performance and economic development. A one-point increase in the MCI score is estimated to lead to an average annual sales increase of US$1,147 per business, and to a 22% increase in the number of businesses registered in a municipality.[22]

Municipalities can begin by looking across the MCI sub-indices to identify their lowest scores, giving priority to those in the higher-weighted categories (Transparency, Municipal Services, Proactivity, and Informal Payments) because these are estimated to have a stronger impact on business performance.

The data in Table 2 show the level of performance across sub-indices of the top municipalities within each level of MCI score.

Among the municipalities with the highest MCI scores, Antiguo Cuscatlán ranked Excellent in all sub-indices, except for Proactivity, Rates and Taxes, and the Municipal Regulations sub-indices. Antiguo Cuscatlán could focus on the specific indicators of each of these three sub-indices to identify opportunities for improvement so that it can maintain its position as the best performing municipality of El Salvador. As another example within this group, Texistepeque might decide to focus on improving its performance in Municipal Services, Time to Compliance, Rates and Taxes, and Entry Costs.

[20] Refer to the full appendix for detailed regression results.

[21] These weights were derived from the contribution each sub-index made to local business success, measured by the 2008 figures for average sales increase and the number of businesses registered with municipalities. The results of a factor analysis are shown in the full report appendix.

[22] Refer to the full appendix.

Table 2. Performance of Top Municipalities, by Performance Group

		Sub-Index								
MCI Score	Municipality	Transparency	Municipal Services	Proactivity	Informal Payments	Public Safety	Time to Compliance	Rates and Taxes	Entry Costs	Municipal Regulations
Excellent	Antiguo Cuscatlán	E	E	H	E	E	E	A	E	H
	La Libertad	H	H	E	E	A	E	H	E	H
	Texistepeque	E	A	E	E	E	H	A	H	E
	San Pedro Masahuat	E	L	E	E	H	A	A	E	A
	Conchagua	E	H	E	H	E	H	VL	E	VL
High	Tepecoyo	E	A	H	E	A	A	H	H	VL
	Santa Tecla	H	A	H	H	H	H	A	E	H
	El Carmen	A	L	H	E	H	A	A	H	E
	El Rosario	H	L	H	E	A	A	A	E	E
	San Pablo Tacachico	H	A	H	E	H	A	L	A	H
Average	Sensuntepeque	A	L	A	A	L	H	L	E	E
	Aguilares	A	L	A	A	L	H	L	H	L
	Lislique	A	VL	A	A	A	H	VL	E	H
	Guaymango	A	VL	A	A	E	H	VL	H	H
	Santa Elena	A	VL	L	E	L	A	L	E	H
Low	Usulután	L	VL	L	VL	A	L	L	H	A
	Zacatecoluca	VL	VL	L	L	L	H	VL	E	VL

Note: E = Excellent, H = High, A = Average, L = Low, VL = Very Low

In the High Performing group, Santa Tecla ranked highly in most sub-indices but could benefit from targeting reforms in Municipal Services and Rates and Taxes. With relatively little effort, this municipality could move up to the Excellent Performing group. The data in Table 2 show that as we move down into the lower MCI performance categories, there are increasing numbers of opportunities to improve the local business environment.

Learning from Neighbors

As shown by the map in Figure 4, the business environment differs greatly across the country, including within departments and regions. This suggests that municipalities could learn from governance practices that have proved successful for their neighbors. In this sense, the MCI has the potential to enable local governments to identify promising opportunities for mutual cooperation. For instance, if Zacatecoluca adopted the transparency practices of its neighbor San Pedro Masahuat, this would take it from the very bottom level of the MCI to the Average Performing group. In addition, adopting the proactivity practices of San Pedro Masahuat would elevate Zacatecoluca to the High Performing group. These improvements would result in an increase of 1.5 points in the MCI score for Zacatecoluca, which our statistical estimates demonstrate would yield an average annual sale increase of US$1,720 per business. With 2,296 registered businesses, additional annual sales would amount to US$3,949,120. An improvement of 1.5 points in the MCI score would increase the number of registered businesses by 33%, which would generate additional employment and would increase local tax revenue.[23]

Moving from MCI Scores to Reality

The MCI is meant to be a tool for municipal and central government leaders to identify and remedy constraints to doing business in their municipalities, as well as to recognize best practices among Salvadoran municipalities and potentially replicate them throughout the country.

[23] See regression results in the full appendix.

As the early paragraphs of this document describe, by ranking municipalities against each other on a variety of indicators, the MCI creates a beneficial sense of competition among municipalities to improve local policies that spur development.

The last stage of the MCI project is a major dissemination event in San Salvador and a series of three municipal-level workshops at which next steps for generating a better business environment will be discussed with both the public and private sectors.

Suggested Actions

Some suggested actions for municipalities which may be examined during the MCI workshops are:

- Using the 2009 MCI results as a baseline from which areas of improvement can be identified to set municipal priorities and develop local action plans for local economic development.
- Generating business-friendly environments by prioritizing those aspects of municipal governance that are valued by local business and are crucial for local development, as noted by the MCI. The private sector is a key actor in the process of generating local employment and well-being.
- Increasing participation of business owners and citizens in municipal decision-making processes. This is an important first step to achieve transparency.
- Taking actions to improve access to local documents and information to improve transparency. Access to accurate and reliable information on municipal budgets, planning documents, and local rules and regulations is essential to promote and retain private sector development.
- Continuing to streamline regulatory and administrative processes to reduce costs and time to local businesses.
- Identifying innovative ways to assist businesses, such as promoting and engaging with business associations, supporting skills training and entrepreneurship programs, and developing services and incentives to attract investors.
- Taking an active role in tackling crime at the local level, because public safety directly affects businesses and investment decisions.
- Strengthening municipal linkages within regions, within departments, and across the country to allow better transfers of information, best practices, and local initiatives.
- Strengthening linkages between the municipal-level governments and the central government to better address issues affecting all municipalities and to improve local implementation of national policies.

ABBREVIATED APPENDIX: SUMMARY OF MUNICIPAL COMPETITIVENESS INDEX (MCI) METHODOLOGY

Notes on the Methodology

Information Sources

The data used to construct the MCI and component sub-indices were collected through two surveys. The first was a sample survey of fixed-location establishments in each of the 100 municipalities included in the study. The second was a survey of mayors and officers across the 100 municipalities. Other sources of municipal data were the *Diario Oficial,* municipality Web sites, and reports published by government agencies, in particular the Instituto Salvadoreño para el Desarrollo Municipal (ISDEM), the Fondo de Inversión para el Desarrollo Local (FISDL), and the Corporación de Municipalidades de El Salvador (COMURES).

Business Survey Design

The business survey was designed as a two-stage sample within each of the 100 municipalities included in the study. The first stage consisted of the selection of a systematic sample of blocks within a municipality, with probability proportional to the block distance from the main business district, usually downtown. The second stage consisted of the systematic selection of business establishments within selected blocks, with probability proportional to the number of establishments within blocks. This sample design resulted in a clustered sample of establishments within each municipality.

The business survey population consisted of all 165,319 establishments with a fixed location in the 100 project municipalities recorded by the Economic Census conducted by the National Statistical Office in 2005.[24] The sampling frame consisted of a list of area blocks specially developed for the study. In most municipalities, blocks consisted of groups of urban squares well delimited by streets starting from the geographical center, normally the central park. In San Salvador and other large municipalities, the city was divided into known business districts and blocks were formed starting from a previously defined geographical center.

A systematic sample of blocks was selected with probability proportional to the distance from the center. Field staff counted the number of establishments with a fixed location within each selected block. The sampling frame consisted of the list of selected blocks together with the count of establishments within each of them.

Municipality Survey Design

The municipality survey was conducted in the same 100 municipalities through interviews with mayors and other municipal officials. Data collection from the municipal government was hampered by the transition process following the January 2009 municipal elections. Problems occurred with eight municipalities which were reluctant to participate in the survey, or whose mayors and officers did not have time to provide the data because they were in the middle of preparing documentation for the transition to a newly elected local government.

To fill the remaining holes in the data, the research team decided to try to collect data on the main survey variables from these municipalities through a "mystery shopper" approach. An interviewer from the research team posed as a person interested in registering a business to acquire the information necessary directly from those municipalities. To test the validity of the method, the "mystery shopper" approach was conducted for some of the municipalities that had already provided complete information. The data collected through this method were nearly identical to those already collected through the face-to-face interviews.

Budget Information

Only 70 municipalities provided data on the amount of their budget and on their expenditures on public services for 2008. For these municipalities, the per capita budget was strongly correlated with the number of businesses, according to the 2005 Economic Census.[25] These municipalities were classified into five groups by the number of workers per business.

[24] Dirección General de Estadística y Censos (DIGESTYC), Ministerio de Economía, El Salvador.

[25] Correlation coefficient of 0.74.

Average values for population size, total budget, and municipal expenditures on public works, education and vocational training, assistance to local businesses, public safety, solid waste management, and urban street maintenance were computed within each of these groups. This procedure resulted in a 0.99 correlation between the reported budget and the imputed budget within the 70 municipalities with data on this variable. Predicted quantities were converted to a per capita basis and then used for imputation in the 30 municipalities with missing data. In the case of San Salvador, budget and public expenditure data were obtained from the municipality Web site; this information was official at the time of data collection.

Survey Questionnaire Development and Testing

Both survey questionnaires were developed by MCI project staff. Extensive desk research was conducted on the municipal business environment in El Salvador, with additional information gathered through regional stakeholder meetings with the business community, mayors, and other key government officials. The draft questionnaires were validated using focus groups that were held with business owners in San Salvador and Santa Tecla, and with municipal officers in Santa Tecla, Sonsonate, and Sonzacate. Simultaneously, the first training session held with the field staff who would conduct the interviews was used to test the tone, level, and accuracy of the language in the first versions of the survey questionnaires. Adjustments were made to both survey forms and pilot tests were conducted with a sample of establishments and with municipal officers in Santa Tecla and Zaragoza. These pilot tests provided useful data to develop the final versions of the survey questionnaires and to test the field procedures.

Data Collection

Data were collected from March 30 to April 24, 2009, by a team of 36 interviewers organized into six groups, each under the leadership of one field supervisor. The six supervisors reported directly to a Head of Operations. Field staff were trained over four sessions to ensure their full understanding of the survey questions and the structure of the survey form, the cartography, and the field procedures for the selection of establishments.

Quality Control

The field supervisors reviewed the full set of questionnaires completed by their interviewers and returned those forms that contained errors to the respective interviewers. These interviewers then revisited the establishments and the municipal government offices to obtain the correct data. The supervisors then returned the completed survey forms to the Head of Operations, who conducted quality checks on a 20% sample of business survey forms and on each of the municipality forms. In case of errors, a team of 6 interviewers beyond the 36 interviewers previously engaged was used to recover data from the relevant establishments and the municipal governments.

Data Entry, Processing, and Production of Clean Files

SPSS Data Entry Builder™ was used to develop a customized data entry and editing program to capture and manage the data from the survey forms. Clean files were produced in SPSS format.

MCI Construction Overview

The MCI construction process consisted of the following stages:

1. Indicators were selected for the variables included as part of the sub-indices. Data for these indicators were gathered through the business and municipality surveys described in the full appendix to this report.
2. Indicator values were transformed to a scale ranging from 1 to 10, where 1 represented the lowest value and 10 the highest value of the characteristic they represented.
3. Unweighted MCI scores were obtained from the sum of the sub-index values. The unweighted MCI could take on a maximum value of 90 for a municipality with a perfect score for all the sub-indices.
4. A simple total of the sub-index scores is not sufficient to measure the municipalities' level of competitiveness. This is because some sub-indices are highly correlated with business success and therefore contribute more to the MCI. The specific weights for each sub-index were obtained via regression analysis of two measures of business performance: scores derived from a factor analysis of the sub-indices, and three measures of municipal structural conditions.*
5. The final MCI was obtained as the weighted sum of the sub-indices. See Table A1 below for an overview of 2009 MCI scores by sub-index.

* Human Development Index (UNDP, 2006), Number of telephones per 100 households (National Census of Population and Housing, 2007) and Distance from San Salvador (in kilometers).

Table A1. Municipal Competitiveness Index Overview

Municipality (Department)	MCI	Transparency	Municipal Services	Proactivity	Informal Payments	Public Safety	Time to Compliance	Rates and Taxes	Entry Costs	Municipal Regulations
Antiguo Cuscatlán (LLB)	7.94	7.44	9.50	7.10	10.00	8.07	5.95	5.35	9.04	8.82
La Libertad (LLB)	7.32	6.36	6.39	8.31	9.50	6.57	6.15	5.79	8.94	8.74
Texistepeque (STA)	7.19	7.54	4.28	8.18	9.28	8.66	5.46	5.38	7.97	9.13
San Pedro Masahuat (LPA)	6.92	7.63	4.21	8.26	9.65	7.26	4.56	4.56	8.64	7.97
Conchagua (LAU)	6.90	7.97	5.73	7.81	8.46	8.87	5.67	3.23	8.79	3.70
Tepecoyo (LLB)	6.63	7.11	5.20	6.83	9.45	6.77	3.98	6.09	7.64	5.49
Santa Tecla (LLB)	6.62	6.40	4.95	6.81	8.56	6.90	5.84	4.96	8.53	8.37
El Carmen (CUS)	6.60	5.91	4.13	6.44	10.00	7.68	4.15	5.26	8.48	9.98
El Rosario (LPA)	6.58	6.92	3.51	6.57	9.60	6.06	4.86	5.24	9.48	10.00
San Pablo Tacachico (LLB)	6.56	6.83	4.56	7.17	9.25	7.72	4.39	3.97	7.31	8.47
San Francisco Gotera (MOR)	6.53	7.32	2.80	6.71	9.48	7.16	5.52	4.80	8.17	8.54
Cuscatancingo (SAN)	6.53	6.68	3.42	6.50	9.30	6.03	6.00	5.50	7.93	9.84
Chalchuapa (STA)	6.43	6.81	4.78	6.16	9.32	5.92	5.75	3.38	7.77	9.44
Pasaquina (LAU)	6.40	6.28	4.99	5.73	8.29	7.39	4.77	5.73	8.97	7.47
Moncagua (SMI)	6.38	7.12	5.03	5.41	8.68	6.00	5.11	5.38	8.11	7.64
Nahuizalco (SON)	6.33	5.78	3.77	6.62	8.99	7.09	5.72	4.22	8.61	8.34
Quezaltepeque (LLB)	6.32	6.19	3.02	6.26	9.25	6.11	5.00	6.18	8.20	9.33
Tejutla (CHA)	6.31	5.79	3.16	6.35	10.00	7.54	4.59	4.37	7.50	9.72
El Tránsito (SMI)	6.30	6.50	2.83	6.85	8.90	7.38	5.26	4.93	9.01	6.62
Santiago Texacuangos (SAN)	6.27	7.07	4.17	4.55	8.99	5.89	5.35	6.14	7.49	9.14
Chalatenango (CHA)	6.25	6.66	3.28	7.05	8.29	7.29	5.49	4.31	8.60	6.40
Mejicanos (SAN)	6.16	5.79	3.17	6.92	8.19	7.10	5.16	5.22	8.24	7.78

Department codes: AHU (Ahuachapán), CAB (Cabañas), CHA (Chalatenango), CUS (Cuscatlán), LAU (La Unión), LLB (La Libertad), LPA (La Paz), MOR (Morazán), SAN (San Salvador), SMI (San Miguel), SON (Sonsonate), STA (Santa Ana), SVI (San Vicente), USU (Usulután)

Table A1. Municipal Competitiveness Index Overview *(continued)*

Municipality (Department)	MCI	Transparency	Municipal Services	Proactivity	Informal Payments	Public Safety	Time to Compliance	Rates and Taxes	Entry Costs	Municipal Regulations
Guazapa (SAN)	6.15	6.60	3.90	5.51	8.17	6.60	5.39	4.47	8.32	9.40
Ilopango (SAN)	6.15	6.92	3.22	5.81	5.36	7.14	6.94	6.93	7.97	9.07
El Paisnal (SAN)	6.15	6.25	2.72	5.90	9.74	6.90	4.86	3.95	8.31	9.39
San Salvador (SAN)	6.14	6.32	3.95	6.10	9.51	6.39	5.25	3.63	7.91	6.73
San Antonio del Monte (SON)	6.13	7.37	3.82	5.86	7.95	6.31	5.40	3.93	7.21	8.90
San Rafael Cedros (CUS)	6.10	6.33	2.31	5.33	9.82	6.84	5.07	4.68	8.71	8.71
Soyapango (SAN)	6.08	5.97	3.36	6.50	7.82	6.80	4.67	4.35	9.07	9.89
Puerto El Triunfo (USU)	6.07	6.45	3.99	3.97	9.71	4.97	5.94	5.13	8.42	8.76
Ilobasco (CAB)	6.07	5.53	3.07	6.03	9.16	6.56	5.87	3.87	8.99	8.42
Jujutla (AHU)	6.06	5.71	3.46	4.94	9.31	7.04	5.32	4.87	6.60	9.83
San Juan Opico (LLB)	6.05	6.43	2.95	4.52	9.30	6.08	6.08	4.82	7.40	10.00
Suchitoto (CUS)	6.04	5.55	6.02	5.03	8.01	7.35	2.99	4.28	9.20	8.65
Huizúcar (LLB)	6.02	6.30	3.15	4.62	8.56	7.27	5.19	5.49	8.71	7.85
Santa Rosa de Lima (LAU)	6.02	5.69	7.45	4.17	6.20	6.96	4.79	3.89	9.02	9.55
Santiago de María (USU)	6.01	4.68	3.12	6.86	8.70	7.30	6.24	2.93	9.06	8.32
Santa Ana (STA)	6.01	3.78	2.69	6.44	8.86	5.01	6.62	7.53	6.61	9.90
Metapán (STA)	6.00	5.24	3.53	6.68	8.26	6.86	5.04	3.07	8.97	9.84
Apopa (SAN)	5.98	6.13	4.12	7.03	7.33	5.33	4.15	5.58	8.06	7.53
Apastepeque (SVI)	5.97	5.80	4.05	4.49	8.97	7.27	5.20	4.59	7.01	8.35
Juayúa (SON)	5.93	5.32	4.74	4.83	9.84	5.75	4.26	3.55	8.20	9.09
Cojutepeque (CUS)	5.92	4.96	4.32	3.63	9.44	6.19	5.62	5.18	8.13	9.13
Corinto (MOR)	5.91	6.32	2.57	5.81	8.76	5.99	4.54	4.29	9.19	9.03
San Julián (SON)	5.89	6.59	1.93	5.64	9.25	7.06	4.34	3.24	8.90	9.52
Candelaria de la Frontera (STA)	5.87	6.23	3.54	5.22	7.10	5.87	5.96	6.15	8.34	6.77
Tamanique (LLB)	5.80	6.55	3.20	6.68	7.54	6.61	3.94	3.61	7.47	8.34
Ayutuxtepeque (SAN)	5.77	6.27	3.23	6.20	8.15	5.58	4.72	3.16	8.67	8.18
San Marcos (SAN)	5.75	6.18	2.66	6.13	7.57	6.73	4.20	3.78	8.87	9.03
Tecoluca (SVI)	5.74	5.34	4.30	5.81	7.62	6.50	4.70	2.67	8.62	9.48
Chirilagua (SMI)	5.74	5.86	3.99	3.45	7.66	6.73	5.79	4.58	9.14	8.73
Atiquizaya (AHU)	5.73	4.70	3.26	5.06	8.56	7.32	4.63	4.37	7.80	9.47
Jiquilisco (USU)	5.73	5.58	2.60	5.70	7.61	6.87	5.02	5.35	9.23	6.42
Lolotique (SMI)	5.71	4.77	2.92	5.78	9.89	6.20	4.06	3.23	7.69	9.47
Sensuntepeque (CAB)	5.68	5.41	3.45	5.64	7.28	5.77	5.02	3.71	9.26	10.00
Aguilares (SAN)	5.68	5.75	3.63	6.10	7.80	5.73	4.94	3.93	8.46	6.07
Lislique (LAU)	5.61	5.85	2.77	5.44	8.41	6.10	4.72	3.42	8.25	8.10
Guaymango (AHU)	5.59	5.15	3.02	5.42	7.65	7.92	5.19	3.00	7.31	8.55
Colón (LLB)	5.57	4.92	2.49	5.80	8.20	6.38	4.64	3.93	7.52	9.85
Anamorós (LAU)	5.56	5.19	2.80	5.30	7.92	6.84	4.93	3.53	8.16	8.88
Santa Elena (USU)	5.55	5.51	2.43	4.51	9.84	5.41	4.61	3.83	7.73	8.50
San Miguel (SMI)	5.54	6.22	4.29	4.90	7.36	4.84	5.04	4.34	7.56	6.50

Department codes: AHU (Ahuachapán), CAB (Cabañas), CHA (Chalatenango), CUS (Cuscatlán), LAU (La Unión), LLB (La Libertad), LPA (La Paz), MOR (Morazán), SAN (San Salvador), SMI (San Miguel), SON (Sonsonate), STA (Santa Ana), SVI (San Vicente), USU (Usulután)

Table A1. Municipal Competitiveness Index Overview *(continued)*

Municipality (Department)	MCI	Transparency	Municipal Services	Proactivity	Informal Payments	Public Safety	Time to Compliance	Rates and Taxes	Entry Costs	Municipal Regulations
Delgado (SAN)	5.53	5.63	2.54	5.59	6.75	6.39	4.74	6.08	7.09	7.57
Olocuilta (LPA)	5.53	5.34	2.75	5.73	7.78	5.75	5.00	4.32	7.96	7.67
Santiago Nonualco (LPA)	5.52	5.81	2.92	6.30	6.24	6.64	5.32	2.82	8.92	8.07
San Juan Nonualco (LPA)	5.50	5.21	2.21	5.62	8.25	7.17	4.38	3.19	7.65	9.69
San Pedro Perulapán (CUS)	5.50	5.55	2.14	4.30	7.45	6.16	5.37	7.28	7.51	6.46
Izalco (SON)	5.46	4.65	1.59	3.86	9.82	6.41	4.77	5.38	7.27	9.13
San Alejo (LAU)	5.46	4.77	3.11	6.19	6.60	6.84	4.50	4.30	7.36	8.45
Zaragoza (LLB)	5.45	5.38	2.75	5.26	7.87	6.72	4.61	3.33	7.82	8.53
Nejapa (SAN)	5.42	5.55	3.28	5.28	7.51	5.66	4.41	3.32	8.62	8.17
Nueva Concepción (CHA)	5.42	4.61	2.43	5.45	7.05	6.43	5.04	5.69	8.44	6.92
Ciudad Barrios (SMI)	5.40	5.10	1.99	5.59	9.30	6.01	4.39	2.07	8.61	8.66
Jucuarán (USU)	5.39	4.58	2.26	5.43	7.67	7.44	4.24	3.18	8.60	10.00
San Sebastián (SVI)	5.38	5.28	1.98	4.16	9.30	5.32	5.11	3.99	9.54	7.17
Sonzacate (SON)	5.36	3.90	2.18	3.95	9.40	6.35	4.98	4.08	8.07	9.92
Sonsonate (SON)	5.36	6.23	2.33	5.13	6.51	7.46	4.26	2.78	7.55	9.90
Jucuapa (USU)	5.34	3.92	1.66	4.90	7.95	6.33	4.80	5.12	9.45	9.50
San José Villanueva (LLB)	5.31	4.94	1.94	5.08	7.45	7.42	4.66	3.88	6.98	8.76
Armenia (SON)	5.30	5.31	2.72	5.51	5.38	7.43	4.85	3.32	9.05	8.94
San Luis Talpa (LPA)	5.28	5.24	1.44	4.34	9.43	5.73	3.99	3.75	8.41	8.85
Tonacatepeque (SAN)	5.22	5.41	1.85	3.04	8.12	7.10	5.34	4.43	7.34	8.02
San Luis La Herradura (LPA)	5.22	5.03	1.66	5.31	5.65	6.98	4.67	5.09	8.52	9.57
San Martín (SAN)	5.21	6.05	2.10	6.10	7.38	3.66	5.46	3.04	9.03	5.89
San Sebastían Salitrillo (STA)	5.20	5.36	2.66	5.11	6.89	5.05	4.49	4.55	7.46	8.11
Berlín (USU)	5.18	4.94	2.11	5.03	7.25	7.08	4.46	2.16	8.94	9.49
Tacuba (AHU)	5.18	4.98	2.18	4.71	6.84	6.76	3.78	5.75	6.00	8.74
San Vicente (SVI)	5.15	4.77	2.27	5.70	6.39	5.29	4.07	4.58	8.33	9.45
Acajutla (SON)	5.07	4.48	2.82	4.13	6.61	5.38	5.13	5.97	8.73	5.56
Ahuachapán (AHU)	5.04	4.64	2.08	4.51	7.41	6.17	4.64	3.50	8.31	7.96
La Unión (LAU)	5.03	4.62	2.16	4.66	7.26	5.68	4.03	3.08	9.23	9.61
Coatepeque (STA)	4.99	4.27	2.88	4.75	6.50	6.10	5.26	3.35	7.11	7.90
San Francisco Menéndez (AHU)	4.98	5.31	2.07	5.42	6.25	6.64	5.45	3.01	6.42	5.91
Panchimalco (SAN)	4.97	4.17	1.77	4.89	7.49	5.73	4.28	3.54	9.39	7.97
Chinameca (SMI)	4.93	4.30	2.30	4.17	5.80	6.78	5.29	3.52	8.27	9.59
El Congo (STA)	4.91	4.39	2.69	4.18	6.67	5.93	4.98	2.66	8.10	9.08
Santo Tomás (SAN)	4.84	4.82	2.79	3.48	7.15	4.50	5.55	2.63	7.97	8.90
Ciudad Arce (LLB)	4.82	5.09	2.12	4.45	6.39	5.80	4.35	3.24	8.60	6.80
Usulután (USU)	4.58	3.99	2.33	4.63	4.66	6.21	3.90	4.30	7.86	7.95
Zacatecoluca (LPA)	4.48	3.69	2.05	4.37	6.01	5.06	5.12	3.16	8.67	5.80

Department codes: AHU (Ahuachapán), CAB (Cabañas), CHA (Chalatenango), CUS (Cuscatlán), LAU (La Unión), LLB (La Libertad), LPA (La Paz), MOR (Morazán), SAN (San Salvador), SMI (San Miguel), SON (Sonsonate), STA (Santa Ana), SVI (San Vicente), USU (Usulután)