

## Panama: employment forecast on an input-output framework

### Extended abstract

Using an input matrix referenced in 2013 quantify the effects of changes in the various components of final demand in the productive sectors. The approach allows identifying the activities where discretionary actions can be concentrated, so as to allow a greater growth of employment in the economy.

The approach allows examining: 1) interrelationships between economic activities; 2) multiplier effect of the different branches of activity on the economy; and 3) classification of activities based on their multiplier effects.

The identification and classification of activities was based on Rasmussen approach, which is based on the calculation of backward and forward linkages of an industry over the rest of the economy, as well as criteria of dispersal power of the impulses and sensitivity of dispersion.

Scenarios yield an evolution of the employment that is inferior to the growth of the product. However, the added value of this research finding lies in observing the evolution of employment at the sector level.

Four main results are as follows:

- Construction of an input matrix for the Panamanian economy for 2013.
- Development of a mechanism to convert a series of scenarios or assumptions into disaggregated employment outcomes.
- Potential to simulate potential labor demands by type of qualification
- Potential to show variations in labor productivity, so that sector requirements of future workers could explained.

Construction is the activity that creates more jobs per year on average, about 7,000 new jobs, which is about one in five new jobs. Despite its dynamism, such job creation refers to labor with low qualification in its great majority. The other activities would create between 3,800-1,700 posts, including Education, Health and Other Services as well as Commerce (20% of new jobs as a whole), in the first case, jobs are created in the category of labor Qualified, while for the latter, more unskilled labor is demanded. In most other activities, with the exception of Agriculture and Private Homes, it deprives the creation of new posts with an average qualification.

On the Ramussen approach, the main and final sectors are directed mainly by consumption and gross capital formation (more than 65%), the latter being the sector with the highest relative importance, while the supply sector accounts for more than 85% of its sales in consumption And exports. Finally, the independent sectors show greater diversification as they direct their production to supply exports, consumption and gross capital formation.

The paper is developed as follows: Section 2 explains the methodology used. Section 3 presents the model specified for carrying out this research and the results of the simulations for the 2014-2020 period. Section 4 describes the classification of activities. The classification of sectors and their relation to the components of the final demand are explored in section 5. Finally, the conclusions obtained are shown in section 6. A new section will be added showing the comparison with the Costa Rican results.