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# Vocational interests of youth in Ecuador

Inventory  
of the Occupational Preferences  
of Youth



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WYDAWNICTWO  
UNIWERSYTETU  
ŁÓDZKIEGO

**Mariusz Tomasz Wołónciej**  
**Anna Paszkowska-Rogacz**

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**Inventory  
of the Occupational Preferences  
of Youth**

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# Table of contents

Introduction.....	7
1. The context of occupational guidance in Ecuador.....	11
1.1. New challenges of the labor market in Ecuador.....	13
1.2. Cultural diversity as a challenge for vocational guidance in Ecuador.....	19
1.3. Ecuadorian youth in the school to work transition.....	23
1.4. Youth passivity and work instability in the labor market.....	24
1.5. Need for tools in occupational guidance in Ecuador.....	26
1.6. Legal aspects of professional guidance in Ecuador.....	27
2. Determinants and correlates of career choice.....	31
2.1. Physical constitution and health in professional choices.....	33
2.2. How does temperament influence occupational choices?.....	35
2.3. Ability as an occupational success predictor.....	37
2.4. Interests as personality traits.....	42
2.5. Beliefs and values as vocational preferences predictors.....	44
2.6. Personality and vocation.....	48
2.7. Stages of career development.....	53
2.8. Career decisions of youth.....	57
3. Theoretical background of the IPPJ questionnaire.....	61
3.1. The theory of John Holland.....	61
3.2. Beyond the RIASEC code letters: Diagnostic aspects of the profile.....	65
3.2.1. Congruence of professional interests.....	66
3.2.2. Consistency of professional interests.....	67
3.2.3. Differentiation of vocational interests.....	70
3.2.4. Identity and vocational interest.....	72
3.3. Prediger's Model of work environment classification.....	73
3.4. Typology of jobs according to Holland and Prediger.....	75
4. The design of the questionnaire.....	79
4.1. The construction of the pilot version.....	80
4.1.1. The pilot study.....	81
4.1.2. The validity study.....	85
4.1.3. The validity study of the 60 item version.....	92
4.1.4. Confirmatory Factor Analysis.....	99

4.1.5. The reliability of the IPPJ scale.....	101
4.1.6. Internal reliability scale: Duplicated items in "Lay key" .....	105
4.1.7. Reliability as test-retest stability of the IPPJ scores .....	107
4.1.8. Construct validity study through the analysis of intergroup differences.....	111
4.1.9. Degree of diversity and intensity of interest.....	116
5. Normalization procedure and analysis .....	119
6. Scales' scores calculation .....	123
7. In the search of new techniques for vocational guidance practice .....	125
Conclusions.....	129
Bibliography.....	131
Appendices.....	141
Appendix 1. The pilot version of the IPPJ (120 items) .....	143
Appendix 2. Answer sheet for the pilot version IPPJ (120 items).....	149
Appendix 3. The key of the pilot version scales (120 items) .....	151
Appendix 4. Items of the final version (60) with type codes after Factor Analysis of the pilot version (120).....	152
Appendix 5. The final version of the INVENTARIO DE PREFERENCIAS PROFESIONALES DE JÓVENES (IPPJ) (60 items) .....	155
Appendix 6. The key of the IPPJ (final version) .....	159
Appendix 7. The translation of the IPPJ items from Spanish into English.....	160
Appendix 8. Sten norms for vocational interests of girls (N = 962) (R, S, E, C scales).....	163
Appendix 9. Sten norms (R, S, E, C) for professional interests of boys (N = 970).....	164
Appendix 10. Sten norms (I, E) for professional interests for girls and boys (N = 1932).....	165
Appendix 11. Sten norms for Holland's Differentiation indicators.....	166
Appendix 12. Sten norms for Iachan's Differentiation indicators .....	167
Appendix 13. Sten norms for the Intensity Indicators.....	168
Appendix 14: The answer sheet: the table profile or/and the hexagon profile .....	169
List of figures .....	171
List of tables .....	173

## Introduction

For most adolescents taking a career decision is usually an overwhelming challenge as they lack necessary knowledge to know where to start a new phase of their path in life, what options they have, and particularly, what they are interested in. They look for the best vocational path that might satisfy their needs and fulfill their expectations. With youth between the ages of 15 and 29 years accounting for about a quarter of the population of roughly 15 million, high school graduates in Ecuador are one of the biggest and fastest growing demographic groups in the country. Country-wide, about 60% of the population is below the age of 29 (INEC, 2010a).

The Economically Active Population (esp. *Población Económicamente Activa* [PEA]) in Ecuador is 4 601 165 persons, of which 1 728 862 are employed full-time and 2 362 396 are employed part-time (INEC 2010a, statistics for March 2010). Recent graduates are usually affected by high levels of unemployment or employment in positions below their educational level or undesirable work places. High school students all struggle to figure out what to do after graduation.

The Ecuadorian labor market is a challenge for young people and working conditions are generally poor, and worse than for adults. In 2009, the employment rate for persons aged 15–24 was 42.9%, as compared to 67.9 percent for adults. The unemployment rate stood at 4.4% among adults and at 14.1% for youth (INEC, 2010b). According to ILO statistics, the employment structure in 2012 in three main sectors was as follows: 27.80% of the Ecuadorian population was employed in agriculture, and this number is growing; 17.80% of employees were in industry; and the biggest group, 54.40%, was employed in the service sector (ILO 2012)<sup>1</sup>.

An efficient system of vocational guidance may provide useful information for social policy and for planning future perspectives and recommendations for developments in education and the economy. It may also be reflected in the development of a wider and more accurate educational offer and work options for many social groups, mainly youth.

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<sup>1</sup> [http://www.ilo.org/ilostat/faces/wcnav\\_defaultSelection?\\_adf.ctrl-state=k3sz20zlg\\_4&\\_afLoop=89619727883364&\\_afWindowMode=0&\\_afWindowId=k3sz20zlg\\_30#!](http://www.ilo.org/ilostat/faces/wcnav_defaultSelection?_adf.ctrl-state=k3sz20zlg_4&_afLoop=89619727883364&_afWindowMode=0&_afWindowId=k3sz20zlg_30#!) (retrieved 11.11.2015).

Vocational counselors may be able to help youth navigate their careers through the labor market, and with the help of reliable evaluations of the competencies and interests of secondary school students looking for the perfect career with the job that fits best to who they are and who they aspire to be. Hence, this publication aims to support counselors in helping youth to discover their passion and possibly inspire them early, and with current, valid information about vocational interests and the demand in the contemporary job-market help them plan either additional schooling or reaching the job of their dreams.

This work presents a new diagnostic tool: the Inventory of Professional Preferences of Youth in Ecuador (IPPJ – *Inventario de las Preferencias Profesionales de los Jovenes en Ecuador*), with an introduction on how to better navigate their careers efficiently and successfully, taking into account the contemporary socioeconomic context in Ecuador.

The key element of the book is a 15 minute self-assessment tool to help youth discover their professional interests and ideal work. Introductory theoretical and more practical instructive chapters highlight invaluable issues concerning the personality aspects and relevant external ones important in the search and construction of careers that fit students' interests. Both, the tool, with the instructions on how to use it, and the introductory section aim to present what constitutes an appropriate profession choice and how to better match it with a successful job. It also aims to give some practical tips as to whether to confirm a particular choice or seek a new career path.

The book on the occupational interests and *Inventario de las Preferencias Profesionales de los Jovenes en Ecuador* begins with an overview of the socioeconomic and legal context of occupational guidance in Ecuador. The second chapter presents crucial determinants of career choice with significant role of the profession choice. The third section highlights the theoretical assumptions (Holland 1959, 1997; Holland, D. C. Gottfredson, & Power, 1980) of the questionnaire that are the starting point for the validation procedure of the new diagnostic tool.

The fourth chapter presents a detailed description of all crucial steps in the construction of the *Inventario de Preferencias Profesionales de Jovenes* that might serve at first for future, continues the research of academic investigators and experts which is necessary for the development and adaptation of the tool as well as for the longitudinal study of the vocational interests of Ecuadorian students or other related topics and variables. The book was planned as the starting point for further research on the methodology for analysis of professional interests and a longitudinal study to provide a new perspective on the assessment and interpretation of professional interest stability and development.

In the next paragraphs the book presents of the empirical studies indicating the detailed study results of reliability and validity of the tool. An important element of this procedure was the diagnosis of applicability and generalization of John Holland's model in the culturally different and diverse South American context. Hence, the Holland's (1959, 1975, 1992, 1994, and 1997) theoretical model was validated by exploratory factor analysis and confirmatory analysis to discover

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the internal structure of professional interests in Ecuador and to validate the tool constructed with Ecuadorian vocational counselors.

For the first time a research project on professional preferences of youth entering specific career paths was conducted on a representative national sample. This was made possible through the involvement of more than 4000 individuals: students and a group of psychologists and vocational counselors who participated in the test construction, pilot study, main study, re-test and normalization study.

The fifth chapter describes the data normalization results to provide counselors with useful reference data. Additionally, this section describes in brief the statistical procedure, calculation and interpretation of results. The last section summarizes the methodology and the tool construction process and presents possible challenges and recommendations for the efficient use of the IPPJ questionnaire results in advisory practice in Ecuadorian consulting and educational institutions.

This book on the career preferences of youth in Ecuador has been written as a result of a Prometeo research project of the *Secretaría Nacional de Educación Superior, Ciencia, Tecnología e Innovación* [National Secretariat for Higher Education, Science, Technology and Innovation] (SENESCYT) in Ecuador entitled Occupational Preferences of Youth in Ecuador.<sup>2</sup> The IPPJ is a psychometric tool elaborated in cooperation with a team of 25 psychologists and vocational counselors working as professional counselors in selected Ecuadorian schools (*Colegios*) and advisory institutions, and was coordinated by Mariusz Wołóńcziej, Ph.D. (Prometeo investigator) in cooperation of Anna Paszkowska-Rogacz, associated professor at the University of Lodz, Poland. The project that resulted in the diagnostic tool was undertaken as a joint venture with the team of specialists representing the SENESCYT, *Sistema Nacional de Nivelación y Admisión* [National Leveling and Admission System] (SNNA), and the *Universidad Central del Ecuador* [Central University of Ecuador] (UCE), as well as institutions dealing with professional guidance and the labor market e.g. the International Labor Organization in Ecuador.

The contributions of crucial actors and decision makers ensured the project's success. This was possible thanks to the institutional support of the SENESCYT, Prometeo project, *Ministerio de Educación, Ministerio del Trabajo* [Ministry of Education, Ministry of Labor], *Universidad Central del Ecuador* [Central University of Ecuador], teachers, and other related administrative entities. We are especially thankful to Lorena Araujo and Pablo Ormaza for their valuable, logistic contribution and expertise, and all persons taking part in the innumerable major and minor tasks, such as collecting data, consulting, and sharing valuable experience and knowledge to improve the investigation methodology and the final publication.

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<sup>2</sup> The book is an integral part and the guide of the IPPJ questionnaire created during a one-year research project (2014) on the professional interests of youth in transition from secondary school to university in Ecuador.

A supplementary element of the questionnaire is the electronic version of the tool available on the SENESCYT website (<http://www.educacionsuperior.gob.ec/>) and the manual for vocational counselors. The electronic version allows a student to perform their own self-diagnosis, which may offer them additional information in career planning. After answering the questionnaire items, the student receives a brief report informing him or her of the results obtained related to each of the six Holland model scales.

# 1. The context of occupational guidance in Ecuador

The number of children in secondary school education has increased tripled in the past ten years, and the number of those registered in superior education has doubled. Though the national project development 'well being' (es. *Buen Vivir*) contributed a lot to the higher education level; it still does not guarantee a quicker or easier integration of youth into the labor market. This may partly result from the low level of education received, or from cultural aspects, but may also be caused by the inadequacy of educational profile choices among academic youth (INEC 2013)<sup>1</sup> as well as poor vocational guidance support for students.

Contemporary, more and less latent labor market indicators highlight some of the challenges Ecuadorian youth face in the transition from school to work as working conditions are poor and generally much worse than for adults. The total official unemployment rate for the general population was low and stood at 4.28 (INEC, 2014)<sup>2</sup>. According to statistics of the *Instituto Ecuatoriano de Estadísticas y Censos* [Ecuadorian Institute of Statistics and Censuses] in 2010 (INEC, 2010b), the employment rate for persons aged 15–24 was high, at around 43 per cent while it was 67.9 per cent for adults.

Interesting, additional markers (e.g. NEET-type indicator) shed light on a hidden dimension of the labor market in Ecuador. A NEET is a young person who is 'Not in Education, Employment, or Training' and is similar to NLFET rate used in 2013 by the International Labor Organization (ILO), where the acronym NLFET stands for 'Neither in the Labor Force, nor in Education or Training'. According to the ILO statistics (see the analysis of the *Organización de Trabajo Decente y Juventud en América Latina* [Decent Work and Youth Organization in Latin America])<sup>3</sup> the NLFET rate in Ecuador is relatively low compared to other South America countries. According to official statistics one in five people between 15 and 24 years of age is neither in school nor working. Simultaneously, the share of young women in Ecuador, from which 32% of the 19–24 age group

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<sup>1</sup> <http://www.ecuadorencifras.gob.ec/estadisticas/> (retrieved 11.11.2015).

<sup>2</sup> <http://www.ecuadorencifras.gob.ec/estadisticas/> (retrieved 11.11.2015).

<sup>3</sup> <http://www.andes.info.ec/es/noticias/ecuador-tiene-tasa-desempleo-juvenil-mas-baja-america-latina-caribe-segun-gobierno.html#8120> (retrieved 11.11.2015).

neither work nor study, is significantly higher in comparison to men, where 37.1% men have neither any work nor access to education (INEC, 2010b).

Professional education is a significant factor contributing to the average life standards related directly to income levels in Ecuador. An Ecuadorian without a degree earns usually less than 200 USD per month, while a professional who has completed a degree has an income of around 1.500 USD per month (on-line resources de INEC)<sup>4</sup>. Figures show, additionally, that workers with a professional degree often have more and better access to benefits such as training, holidays, social security, etc. than those who have not completed their education (77% vs. 35% respectively).

The context for all these numbers are deep transformations in the Ecuadorian educational system and labor market that have created the need for research that would highlight the role and assimilate the occupational interests of youth and youth career counseling. The mentioned indicators do not necessarily reflect the entirety of the complex situation of youth who need professional guidance on their career paths.

One of the most urgent challenges of the contemporary Ecuadorian labor market is providing new employees with a job that accurately fits their competences, needs and abilities for increased work satisfaction and professional performance. Secondly, there is also a need for the continuous and appropriate adjustment of candidate characteristics to the circumstances of the job environment. Thus, the physical and psychological (i.e., cognitive and emotional) aspects of the candidate should meet the physiological and psychological requirements of the specific job performed (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001).

As mentioned above this study on vocational preferences is an integral and important component of the national program *Buen Vivir* ('well being') program addressed to youth entering the labor market or the next level of their education. Young people, with their specific personality traits, various talents and competence profiles face a critical period of decision-making and the subsequent life-long consequences of these decisions. Thus they are in need of professional support to plan and manage their careers.

The research on vocational interests aims to better understand the real success factors of Ecuadorian students in their post-secondary education and future career. Secondly, it aspires to serve vocational counselors and teachers as a practical tool, which incorporates the necessary theoretical framework for career guidance, and a psychometric tool developed with a representative national sample of Ecuadorian youth (16–19 years old). This publication presents the results of such a study. Both the research methodology description and the questionnaire as a diagnostic tool fill a gap in the system and aim to support efficient human resource management in Ecuador. They may have a direct impact on future job satisfaction, creativity and efficiency at work, and in consequence, the national economy.

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<sup>4</sup> [http://inec.gob.ec/inec/index.php?option=com\\_remository&Itemid=420&func=startdown&id=935&lang=es](http://inec.gob.ec/inec/index.php?option=com_remository&Itemid=420&func=startdown&id=935&lang=es) (retrieved 11.11.2015).

In the context of contemporary education and the labor market challenges, the *Inventario de Preferencias Profesionales de Jóvenes* (IPPJ) may serve Ecuadorian youth as it was designed using the highest methodological standards to ensure its validity and reliability, and in accordance with the complex socio-cultural context of Ecuador in the transition period known as *revolución ciudadana* (citizen revolution).

## 1.1. New challenges of the labor market in Ecuador

Vocational guidance is an intrinsic aspect of the human resources management process on both a personal as well as societal or national level. Its success is related, among other factors, to the disproportion between the job supply and job demand in the Ecuadorian labor market (INEC, 2010)<sup>5</sup>. At the individual level, human resources management conditions the better use of a given student's personal resources and interests. At the national level, it is reflected in the labor market conditions and results in general life satisfaction in Ecuador.

As the economy in Ecuador is undergoing rapid changes that have deeply impacted the employment structure (INEC 2010a), the educational system is seeking efficient solutions and tools to face future labor market demands. In 2012 according to ILO statistics about 27.8% of the Ecuadorian population was employed in the agriculture sector, 17.8% in industry and 54.4% in the service sector.

An occupational guidance system based on adequate information about the labor market as well as a set of reliable and valid diagnostic tools is capable of providing solutions for the educational system and developing new strategies to support students, graduates and unemployed/underemployed persons, preparing them for the transition into the labor market in Ecuador or abroad.

The Ecuadorian labor market is developing in each of key employment sectors with 36.7% of Ecuadorian population living in rural area and 63.3% in urban regions (World Bank Statistics, 2014)<sup>6</sup>. The situation of youth is especially difficult in rural areas, where Ecuadorians experience very low income and limited employment choice. According to World Bank Statistics the percentage of the population living below the national poverty level is still quite high and this is related to limited education access, low health conditions, economic activity, security, and life satisfaction.

The satisfactory economic indicators of the prior decade are being challenged by the present crisis caused by a growing national debt and very low oil barrel prices in 2015 (oil is one of the key income sources for Ecuador). This situation is aggravated by the disadvantages of the educational system and the labor market situation. The latest indicator of poverty in Ecuador estimated on the basis of

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<sup>5</sup> [http://www.inec.gob.ec/inec/index.php?option=com\\_remository&Itemid=&func=startdown&id=932&lang=es&TB\\_iframe=true&height=250&width=800](http://www.inec.gob.ec/inec/index.php?option=com_remository&Itemid=&func=startdown&id=932&lang=es&TB_iframe=true&height=250&width=800) (retrieved 14.11.2015).

<sup>6</sup> <http://data.worldbank.org/country/ecuador> (retrieved 14.11.2015).

a population-weighted subgroup from household survey statistics in 2014 was 22.5% of the population. In 2010 the population of Ecuadorians living on less than five dollars a day was 37.1% (ILO Yearbook of Labor Statistics, 2014)<sup>7</sup>.

The position of youth on the Ecuadorian labor market scene is somewhat complicated, and contradicts the satisfactory indicators of a relatively low youth unemployment and high employment rate (Figure 1), which do not always coincide with real youth career opportunities.

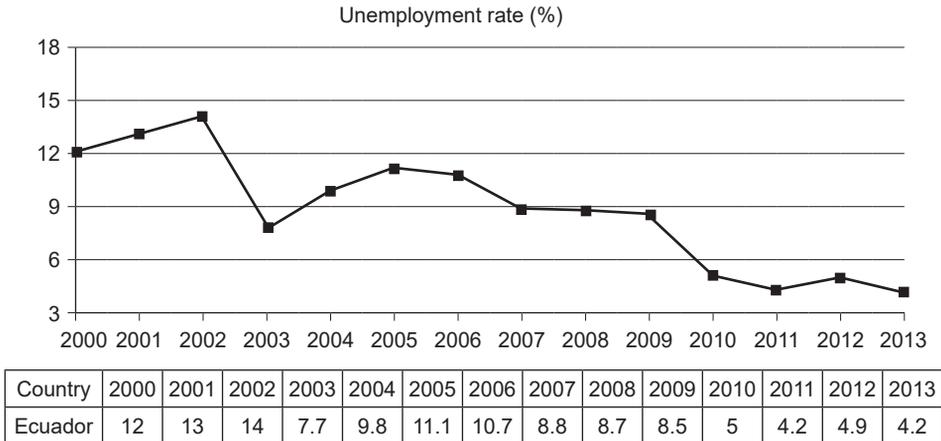


Figure 1. Unemployment rate indicators, 2000 to 2013  
(ILO, Yearbook of Labor Statistics, 2014)<sup>8</sup>

According to ILO statistics the unemployment rate is defined as a percent of the labor force that is without jobs and additionally substantial underemployment might be noted. Ecuador has a relatively high Labor Force Participation rate, which was 61.45% in February 2014 (ILO, Yearbook of Labor Statistics, 2014)<sup>9</sup>. The discrepancy by gender was high, however, with female Labor Force Participation at 47.77%. The total unemployment rate in Ecuador was relatively low and ranged about 4.68%,<sup>10</sup> compared for instance to the number of economically active persons without work in Spain during an analogical period of time which was five times higher, 25.9% registered unemployed. As mentioned earlier, the youth unemployment rate (15–24 years old) is also relatively low, as it reached 14.1% in 2009 then dropped to 11.2% in 2011 and 10.2% in 2014. An important characteristic of the labor market is the employment rate understood as the percentage of the total labor force that is employed.<sup>11</sup> Simultaneously, a very

<sup>7</sup> <http://www.oit.org/stat/Publications/Yearbook/lang--en/index.htm> (retrieved 14.11.2015).

<sup>8</sup> <http://www.oit.org/stat/Publications/Yearbook/lang--en/index.htm> (retrieved 14.11.2015).

<sup>9</sup> <http://www.oit.org/stat/Publications/Yearbook/lang--en/index.htm> (retrieved 14.11.2015).

<sup>10</sup> With higher Female unemployment was higher at 5,25%.

<sup>11</sup> This may result from the high risk and expense of creating jobs in Ecuador.

high discrepancy in the employment rate between men and women suggests the difference of opportunities between women and men entering the labor market after they complete their education. This is visible in the total employment rate, 50.37%, and only 34.13% from the total labor force related to women.

Taking into account key labor market indicators we may easily overlook some hidden disadvantages in the work environment of youth. The labor market is characterized by a relatively high employment rate and low unemployment, with an employment rate of 46% in the group of youth 15–24 old in Ecuador (Figure 2), while in the European Union it is 32,45%, and in Spain for the analogical group and time it is only 15,6% (ILO, Yearbook of Labour Statistics, 2013)<sup>12</sup>. What is even more crucial marker of the youth condition on the labor market is not only the employment rate but their real opportunities to have education opportunities and vocational counseling to better prepare them for the future successful career.

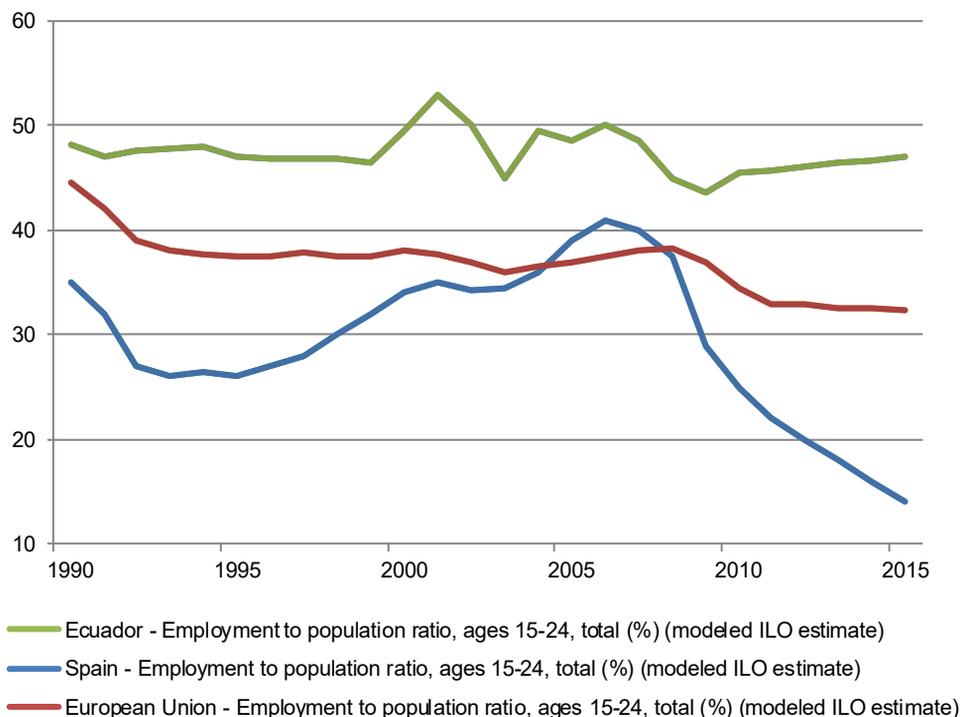


Figure 2. Total employment to population ratio, ages 15–24, in Ecuador: green line (46%) in comparison to the European Union: red line (32.45) and Spain: blue line (15.6%). (Source: ILO, Yearbook of Labor Statistics, 2013)<sup>13</sup>

<sup>12</sup> <http://www.oit.org/stat/Publications/Yearbook/lang--en/index.htm> (retrieved 14.11.2015).

<sup>13</sup> <http://www.oit.org/stat/Publications/Yearbook/lang--en/index.htm> (retrieved 14.11.2015).