



ECONOMIC OBSERVATORY: PROPOSAL OF A LONGITUDINAL STUDY ON THE PROFILE OF (DIS)EMPLOYMENT IN THE ALTO TIETÊ REGION

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ABSTRACT

Regional economic data provide myriad possibilities for pursuing projects related to economic growth and development. Specifically, the Economic Observatory consists of the process of elaboration, capture, analysis and distribution of information related to the profile of (dis) employment of labor. From these stages, the production of studies in the form of scientific works and media dissemination, will aim to stimulate the approach of research institutions and the market formed by people who exercise physical and legal activities in the development and practices of actions that allow a better elaboration in resource allocation, either part of government or private enterprise. The procedures started consist of a validation process of the data collection instrument by specialists, pretesting and initial analysis of the applied database. This is a quantitative study, whose database will consist of minimum quantities of 100 used. Larger studies consider clustering as multiple minimum quantities into a large database and proceeding as cross-sectional analyzes of the thirty-seven investigated variables. The expected result is the creation and development of several research groups, as well as generating information on the topic for those interested.

Keywords: Economic Observatory; Employment; Disemployment; Alto Tietê Region



1. INTRODUCTION

Information management can be understood from three phases, in this case, main ones; capture, analysis and dissemination. Each of these phases obeys specific procedures so that both a process and the respective reliable results are considered. Also, such care allows the study to be replicated in different regions and times for comparative purposes or to build a new, independent database. This is the characteristic that, among others, distinguishes scientific studies from popular polls.

The creation of research proposals has precedents in the review of the national literature and can be observed in studies such as those developed by Scarpin et al. (2013) by the Universidade de Santa Catarina, by the Institute of Applied Economic Research (IPEA), Brazilian Institute of Geography and Statistics (IBGE) and, even, in the international territory as work developed by the Revista de Economia Mundial, subordinated to the World Economy Society, located in Spain, among many other research centers with the same purpose distributed around the world.

Specifically, the Alto do Tietê Region, like many other regions, lacks longitudinal studies that allow a better reach of public or private actions. Knowing the profile, in other words, demographic data of the worker and analyzing such data to cross the variables investigated allows generating information regarding aspects of the employee's activity sector with a formal contract or what was that sector, in case unemployment. Also, identify if there is any generation of informal income, indebtedness or credit restriction, among other aspects.

Preliminarily, studies have peripherally investigated the region and demonstrated both weaknesses and even opportunities and diagnoses. It is, for example, what can be seen in the studies by Ribeiro et al. (2012) and Campos (2012).

2. LITERATURE REVIEW

There is a vast literature available about Economics and its various ramifications, with emphasis on Economic Observatories. In part, it can be explained by the fact that Economics is a Social Science and Economic Observatory is the application of this theory, making up what has been called Applied Social Sciences or more specifically, Applied Economic Research, as is the focus of this study.

However, despite the work quantity, quality and breadth that come together in the effort to produce knowledge about the social condition, political and ideological biases can interfere in the process of capturing, analyzing and disseminating the results obtained. In this regard,

this project aims to provide one more possibility of contributing to the analysis with its own methodology and without any bias, given that the database under construction can be accessed by several researchers who may be part of the work team and who are under this same perspective. In short, it is not a matter of seeking information to justify practices, but seeking data that support practices. To guide the adequacy of actions, for example, public policies or organizational planning.

Angel and Rodriguez (2010) provide us an example of the range that the Economic Observatory can deal with. For them, the Economic Observatory can verify different organizational models, since each one is capable of producing economic impacts and, therefore, can be measured in terms of productivity, importance, and ability to mobilize financial resources. For them, the sport consists of an organizational model that very well figures as an object of study for many researchers. In this case, his study analyzed the economic aspects of the financial situation of professional football in Spain. They detail that several indexes are already used to mention and classify the teams, but even so, the Economic Observatory is important because it includes different variables that allow the crossing of data and a more adequate information management, as is intended in this proposed study.

A significant reflection on the role and importance of the Economic Observatory, in association with other indexes and analyzes of applied economic research, shows us that there is room for more and, mainly, new analysis methodologies. In this proposal, not only the results will be of great validity for several interested organizational agents, but the process (methodology), in itself, constitutes a great contribution, as it considers the participation of already trained and experienced researchers and new researchers represented by students and teachers without this investigative bias.

In this regard, the Economic Observatory of Mexico discusses the transition from the old to the new business model, as explained by Moy (2019). For her, several voices, including her own, make analyzes of the Mexican economic performance that happened after government measures and the end of another period. “Diversas voces, entre ellas la mía, se alzaron para evidenciar los problemas de toda índole”. Again, it is perceived that several indexes and research bodies can associate to investigate the same aspect under different methodologies and research bodies.

Another relevant Economic Observatory and its contribution to the already available index and bodies of applied economic research can be found in Colombia. Thus, in this



literature review, there is a record of a South American country that has this organizational model. Mora and Santacruz (2007), analyzed the pairing between vacant vacancies and vacancies for the city of Cali. His analysis originated from data displayed on a panel. This methodology, it is noted, is a standard, but not a methodological obligation for study centers. In this proposal, the construction of a database will provide presentations, including a panel to expose its results and information generated.

Mora and Santacruz (2007) longitudinally discuss their analyzes, having started collecting data from 1994 until 2000, as intended in this study, that is, accumulating data over the years and establishing associations between the variables investigated. For them, secondary data represents the source of information, for this proposal, primary data will be targeted, obtained from the methodology previously described.

Still touching the importance and contribution of the various Economic Observatories around the world, in different countries, but always focusing on specific regions, In Spain, in Oviedo, the far north of the country, Del Corral (2009) investigates how the sport is influenced by uncertainty, sex, and legislation. For them, the study of variables can explain the performance in competitive matches in the tennis modality in a Grand-Slam tournament.

Once again, one can see the width and diverse applications of the economic observatories, in addition to their regionality, as presented in this proposal to investigate the Alto do Tietê Region. For Del Corral (2009), it was considered to investigate whether it was the increase of players classified in the Grand Slam tournaments from 16 to 32 in 2001 led to a decrease in the competitive balance. These are regional and focused studies of this type that can provide opportunities for the emergence and increase of economic and social activities with a view to economic development.

Finally, another contribution from an Economic Observatory comes from Richards and Marques (2016), also from Spain. For them, it is vital to analyze the bidding process for major sporting events, as is the case in Holland, the European capital of culture. In this study, Richards and Marques (2016), focus on social consequences, such as cohesion, for example. They defend the importance of the cooperation of several actors involved in the process and not just organizational agents, that is, the participation of civil society.

Regarding this, the proposal presented here intends to engage, albeit subtly, the federal research institution of the Alto do Tietê Region, the city halls and the civil society to build and disseminate the results obtained to generate better, more updated and precise information



profile of (un) employment in the region. With this, companies and other organizations are expected to find enough material to promote the region's growth and development.

The literature review revealed the importance, developments, regionality and the contribution of Economic Observatories from some places in the world, but it did not exhaust the many possibilities. The review was limited to specific points to demonstrate that there is no overlap in terms of the variables investigated or the methodology adopted. Thus, many other examples can be considered in the Brazilian case, such as the Institute of Applied Economic Research (IPEA) and the Brazilian Institute of Geography and Statistics (IBGE), among many others. Even so, as demonstrated, there is space and possibilities for new research alternatives, such as this proposal that focuses on two main aspects, the methodology itself and the crossing of variables exclusively considered for this study and region.

3. RESEACH METHODOLOGY

The research proposal on the (un) employment profile in the Alto do Tietê Region is to be a quantitative study. Quantitative studies differ from qualitative studies, among other aspects, in that they have the nature of containing a larger number of respondents. In this case, specifically, it is a proposal to build a database that, every semester, is supposed to increase the number of respondents in a thousand individuals. Thus, throughout the semesters and even in subsequent years, the database is expanded and classified according to the time of its filling in order to allow that several analyzes via a crossing of the data are carried out, taking into account how the sample was carried this determined cut of research.

Acknowledging that the population is the total of residents of the researched region, this database is expected to be a representation, that is, a sample by which inference can be made to the whole, however, as a non-probabilistic sample is intended, this projection for the population as a whole must be made with restriction, that is, there is a limitation of inferences, but high reliability in statistical rigor, as the method is considered valid.

For data analysis, when grouping the samples, we aim to make use of the Structural Equations technique with Partial Least Square (MEEPLS), according to the SmartPLS 2.0 program, since the algorithm of this procedure is less demanding in multicollinearity assumptions and multivariate normality. This technique, according to Hair et al. (2005), considers adequacy to the model proposed in this investigation, as there are sufficient quantity and variety of the investigated variables.

The advantage of this technique concerning the Multiple Regression Analysis of the SPSS is that it allows the concomitant analysis of the relationships (paths) between the variables. Path analysis programs “Path Weighting Scheme” were adopted, since the results of PLS are comparable to those of other statistical techniques (TENENHAUS et al., 2005, p. 203). Considering that when measurable variables have a small number of indicators, as is the case, the PLS-PM program is more appropriate (CHIN; NEWSTED, 1999, p. 333).

In addition to the convergent and discriminant validity, the model investigated at the crossing of variables will undergo a bootstrapping test of 500 resamples in SmartPLS with the option “Individual Changes”, which presents the Student t values for each standardized coefficient (path coefficients). When t values are greater than 1.96, there is a probability of error of less than 5% of the coefficient not being significant. All values obtained are expected to be correlated, positively or negatively, but significant.

Smaller samples developed by beginning students or researchers can be obtained from the use of electronic spreadsheets, from the “Filter Function” and the use of basic statistics, such as mean, median, standard deviation and fashion, to the use of more formulas or operations advanced, as the group manages to develop. This development, per se, is already very relevant in the teaching-learning process, as it is not about “content”, but about the development of knowledge and skills.

The data collection instrument is the result of an extensive validation process. In general and summarized terms, it started with the exposition and debate of ideas, passing through the elaboration of the variables to be contemplated, since part of them is already investigated by different methods and other research bodies. An analysis was also carried out between the pairs and their respective adjustments, pre-test with a reduced sample, face validity and, finally, by a committee of researchers gathered in a room and debating each aspect until reaching the final model.

Having gone through all the essential and already presented procedures for validating the instrument, a questionnaire, each researcher formed his own team and received a link to access the questionnaire. This link grants access to the electronic questionnaire, which is hosted at the institutional level. The files generated based on the questionnaires and responses of each group are managed and stored on the website of a research institution. The purpose of this institutional storage is to provide the institution with the possession and management of the

database, under the supervision of a researcher previously established as responsible for the project as a whole.

One of the by-products of this institutional research is to provide students of different levels of education, the chance to integrate socio-economic research, learning procedures, analysis and diffusion of results. Each research group will be guided by the main researcher who, for every 100 respondents, will make presentations on the data obtained. Such presentations may serve as a classroom activity, Course Conclusion Papers (TCC) or publication of scientific articles in annals and journals. The proposal consists of a kind of large umbrella, metaphorically addressing, to allow other researchers from different areas of knowledge to integrate the project and significantly increase the culture of individual and institutional research.

4. ANALYSIS OF RESULTS AND DISCUSSION

The data obtained through the questionnaire will be treated according to each group. Thus, when reaching the minimum number of 100 respondents ($n = 100$), as recommended by Hair (2005), so that minimal analysis of the correlations are possible, the groups will proceed with the analysis. The initial proposal whose objective is described throughout this study is to reach 2,400 respondents. This objective is strategically set based on the number of groups that make up this Applied Economic Research Project (PPEA). In quantitative terms, there are 24 groups of different levels of education, that is, Medium Level Integrated to Technic, Technic, Graduation, and Postgraduate. All connected to public education, research and extension institution located in the Alto do Tietê Region.

As for the use and dissemination of the data obtained and, mainly, of the analysis developed due to the crossing of the data, it is intended that they occur in evaluative activities of the classroom, for example, seminars. The possibility of presenting Course Conclusion Papers (TCC) is also envisaged, both for technical levels and for undergraduate and graduate courses. All analyzes may generate scientific articles after the students work together with a respective supervising professor for publication in congresses and / or academic journals and journals.

In this way, working with students and teachers together, the data tabulation can be elaborated with criteria that meet specific demands according to the purpose of the publication, improving the mutual capacities of teachers and students and providing the institution with a

research organization status. In this regard, the dissemination of results obtained in the social media, in general, stands out. Sites, printed newspapers, television programs, among others.

An example of how the data analysis will be developed can be seen in Figure 1. Note that the 37 variables that make up the Economic Observatory are arranged in the columns of an electronic spreadsheet and this data can be manipulated, according to the choice of a variable in comparison to another or even other variables whose interest the researcher provides for the investigation.

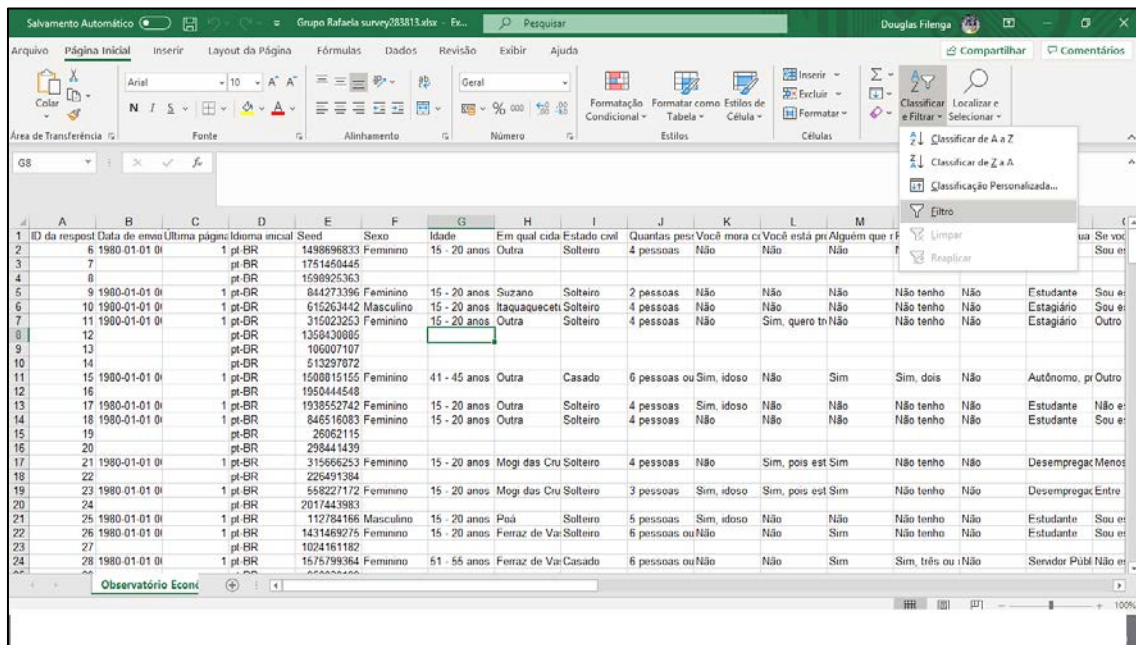


Figure 1: Spreadsheet for data analysis

For diagramming reasons, not all the investigated variables appear in Figure 1, it is a demonstration whose purpose is to exemplify the structure of the database using an image. In this structure, it is noted that there are some blank lines that require the researcher to process the data, recommended by the scientific literature Hair (2005), whose work requires that the data obtained receive adequate and methodological treatment so that the crossing investigation can proceed. of the variables.

Another example of how the data can be worked on, as seen in Table 1. It presents an example of how the distribution of men and women by the city in the Alto Tietê Region would occur. As noted, in general, there is an apparent balance in the data. Exception for the city of Ferraz de Vasconcelos, whose number of women presents a greater difference compared to the number of men. This finding could serve as information for business organizations, public policy planning, and measures, as well as new studies to investigate the possible causes of these effects.

Table 1: Male and Female distribution by City

Male	Female	City
45%	55%	Suzano
65%	35%	Mogi das Cruzes
53%	47%	Arujá
39%	61%	Ferraz de Vasconcelos

Source: The author

Many other variables could be exposed here as demonstrating examples of how the data analysis promises to be fruitful for the analysis of (un) employment in the Alto Tietê Region, but it is believed that this conviction has already been successful and that more examples would not fulfill this role by quantity, as the focus was on quality and demonstrated possibility.

It is also argued that measurement is a guiding principle for every manager. Everything must be measured to know if, for example, the results obtained are adequate for those planned. The feedback of the system should also be considered, so that the information generated can allow adjustments to its planning, in turn, to achieve more efficiency, efficacy, and effectiveness.

The manager must, therefore, appropriate information so that the decision-making process allows better decisions. This is one of the reasons why the Economic Observatory is proposed. To better manage public and private, human, material, financial and marketing resources. It is not just about improving yourself, over time, but also in other regions of the country and abroad. All for the benefit of social and economic progress.

5. CONCLUSIONS

Economic Observatory is an important way of obtaining information about an intended object of study. Both by the methodology, as well as by the results and involvement of different professional researchers and / or students, as well as by public agents and by the private initiative, growth, and economic development can be promoted by providing interested parties with information that allows a more adequate and well-founded decision and use resources.

The proposal to create the Economic Observatory in a research institution located in the region studied is an alternative and, at the same time, an opportunity for information management to promote the process and obtain results on the profile of (des) employment in the region. Currently, the Economic Observatory of this public research institution has the involvement of technical, higher and postgraduate education. Altogether, around 2,400 responses are intended, analyzed and presented by different groups of researchers.

Enlightenment outside the research institute is also part of the objectives of this proposal. It is expected that the media, as a whole, also express an interest in participating in the dissemination of research findings so that it has its strand in the language and format of the market and not just in the scientific language in the form of articles.

New studies may be presented containing analysis and developments of the reasons for the findings at the crossing of the variables, to explain the reasons that clarify the findings of the study, for example, because a city has a higher number of women, as shown in the analysis in Table 1.

The limitations of this study can be seen that at this stage employers' organizations were not considered. This inclusion is intended for a second stage of the Economic Observatory where they will be studied to generate information about their profile, with a view, for example, to hiring specialized labor, their needs, capacities, projects, and idleness. All this to compose a database and allow adequate management of the information in a mixture with the information about the researched individuals.

REFERENCES

- ANGEL, B.; RODRIGUES, P. (2010) Spanish club's finances: Crisis and Player Salaries. **International Journal of Sport Finance**, v. 5, n. 1, p. 52-67. Observatório Econômico del Deporte. University of Vigo. <http://www.sportbusinesscentre.com/events/spanish-football-clubs-finances-crisis-and-player-salaries/>.
- CAMPOS, D. C. (2012) Ocupação das várzeas no alto Tietê e a reprodução deste modelo urbano na Bacia do rio Baquirivu Guaçu, Guarulhos e Arujá - SP. **GEO/USP Espaço e Tempo (Online)**, v. 32, p. 198-213. DOI: <https://doi.org/10.11606/issn.2179-0892.geousp.2012.74291>.
- CHIN, W. W.; NEWSTED, P. R. (1999) **Structural equation modeling analysis with small sample using partial least squares**. In HOYLE, R. H. (ed.). *Statistical Strategies for Small Sample Research*. Thousand Oaks: Sage Publications, p. 307-348.
- DEL CORRAL, J. (2009) Competitive balance and match uncertainty in Grand-Slam Tennis: Effects of Seeding System, Gender, and Court Surgence. **Journal of Sports Economics**, v. 10, n. 6, p. 563-581. <https://journals.sagepub.com/doi/abs/10.1177/1527002509334650>.
- HAIR JR., J. F.; BABIN, B.; MONEY, A. H.; SAMOUEL, P. (2005) **Fundamentos de métodos de pesquisa em administração**. Porto Alegre: Bookman, p. 175-196.
- MORA, J. J.; SANTACRUZ, J. A. (2007) Emparejamiento entre desempleados Y Vacantes para Cali: Um analisis com datos de panel. **Estudios Gerenciales**, v. 23, n. 105, p. 85-92. Observatório Econômico y Social del Valle del Cauca. https://www.researchgate.net/publication/4829555_Emparejamiento_entre_desempleados_y_vacantes_para_Cali_entre_1994_y_2005_Un_analisis_con_datos_de_panel.

MOY, V. (2019) Sexenio Nuevo, ¿Economía Nueva? **Nexos: Sociedad, Ciencia, Literatura**, v. 41, n. 494, p. 18-21. Cengage Learning, Inc. Observatório Econômico México. <https://www.nexos.com.mx/?p=40944>.

RIBEIRO, M. G.; COLASSO, C. G.; MONTEIRO, P. P. ; PEDREIRE FILHO, W. R.; YONAMINE, M. (2012) Occupational safety and health practices among flower greenhouses workers from Alto Tietê Region (Brazil). **Science of the total environment**, v. 416, p. 121-126. Disponível em: <https://doi.org/10.1016/j.scitotenv.2011.11.002>.

RICHARD, G. MARQUES, L. (2016) Bidding for Success? Impacts of the European Capital of Culture BID. **Scandinavian Journal of Hospitality and Tourism**, v. 16, n. 2, p.180-195. Observatório Econômico de Madrid. <https://core.ac.uk/download/pdf/42142889.pdf>.

SCARPIN, M. R. S.; RONCON, A.; CORREA, R. B.; HOELTGEBAUM, M. (2013) Proposta de indicadores para um observatório de empreendedorismo no Brasil. **Revista Eletrônica de Estratégia e Negócios**, v. 5, n. 3, p. 90-121. Disponível em: <https://doaj.org/article/3ce4b0c79cf94ad9aecc6af2cf0b5f7f?frbrVersion=2>.

TENENHAUS, M.; VINZI, V. E.; CHATELIN, Y. M.; LAURO, C. (2005) PLS Path modeling, **Computational Statistics & Data Analysis**, v. 48, p. 159–205.