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Continuing Education in the Italian Regions

Between 2004 and 2019 it decreased in Campania, Sicily, Abruzzo, and Calabria

Istat calculates participation in continuing education. Continuing education is defined as "Percentage of people aged 25-64 who participated in education and training activities in the 4 weeks prior to the interview out of the total of people aged 25-64".

Ranking of the Italian regions for participation in continuing education. In first place for participation in continuing education in 2019 is Friuli-Venezia Giulia with a value of 10.9, followed by Trentino-Alto Adige with a value of 10.8 followed by Emilia Romagna with a value equal to at 10.4%. In the middle of the table there are Lombardy with a value of 9.1%, Piedmont with a value of 8.8%, Lazio with a value of 8.5%. Calabria closes the ranking with a value of 5.7%, Campania with a value of 5.3%, and Sicily with a value of 4.8%.

Participation in continuing training in the Italian regions between 2004 and 2019. If we look at the relationship between 2004 and 2019 in continuing training, it appears that some regions have increased the participation of workers in continuing training while others have shown a decreasing trend. In first place there is the Valle d'Aosta which between 2004 and 2019 increased participation in continuous training by an amount equal to 4.7 units, followed by Veneto and Emilia-Romagna with a tie with a differential value of 3.7. In the middle of the table there are Umbria with a value of 2.6 units, Sardinia with an amount of 1.9 units, and Marche with a value of 1.7 units. However, there are also regions in which the amount of the population that participated in continuous training has decreased, i.e. Abruzzo with an amount equal to -0.4 units, Sicily with -0.4, Campania with an amount equal to -0.5 units and Calabria with an amount equal to -1.00.

Training continues in Northern Italy. The value of continuing education in Northern Italy increased in the period between 205 and 2019. In 2015 the value of continuing education was equal to 8.1 units and then increased in 2016 to a value of 9.3 units with an amount equal to 1.2 units equal to an amount of 14.81%. In the transition between 2016 and 2017, the value of continuing education decreased from an amount equal to 9.3 to a value of 9 units or equal to a variation of -0.3 units equal to a variation of -3, 22%. In the transition between 2017 and 2018 the value of continuing education in Northern Italy went from an amount equal to 9 units up to an amount equal to 9.5 units or equal to a variation of 0.5 units equal to a value of 5.5%. In the transition between 2018 and 2019, the amount of continuing education in Northern Italy increased from an amount equal to 9.5 to a value of 9.6 units or an amount equal to 0.1 units equal to an amount of 1.05%. In the transition between 2015 and 2019, the value of continuing education in Northern Italy grew by an amount equal to 1.5 units or equal to a variation of 18.51%.

<u>Participation in ongoing training in the Center.</u> The value of participation in continuing training in Central Italy increased in the period between 2015 and 2019 by an amount equal to 0.4 units, equal to a value of 4.76%. In the transition between 2015 and 2016, the value of continuing education in Central Italy increased from a value of 8.4 units to a value of 9.4 units or equal to a variation of 1 unit equal to a value of 11.90%. In the transition between 2016 and 2017 the value of continuing education

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in Central Italy decreased from an amount equal to 9.4 units up to a value equal to 8.8 units or equal to a variation of -0.6 units equal to a value of -6.38%. In the transition between 2017 and 2018, the value of continuing education in Central Italy decreased from an amount of 8.8 units to a value of 8.7 units or equal to an amount of -0.1 units or equal to one variation of -1.1%. In the transition between 2018 and 2019 the value of continuing education in the center went from an amount equal to 8.7 units up to a value equal to 8.8 units or equal to a variation of 0.1 units equal to a value of 1.14%.

Training continues in the South. The value of continuing education in the South remained substantially constant in the period between 2015 and 2019, going from a value of 5.7 to a value of 5.8 or a change equal to a value of -0.1 units equal to a value of -1.75%. In the transition between 2015 and 2016, the value of continuing education increased from 5.7 units to 6.2, i.e. a value equal to 0.5 in absolute value and equal to 8.77%. Between 2016 and 2017 the value of continuing education decreased from 6.2 units to 6 units or equal to a variation of -0.2 units or equal to a variation of -3.22%. Between 2017 and 2018 the value of continuing education in Southern Italy decreased from an amount equal to 6 units up to an amount equal to 5.9 units or equal to -0.1 units equivalent to a value of -1.66%. Between 2018 and 2019 the value of continuous training in the South went from an amount equal to 5.9 units up to a value equal to 5.8 units or equal to a value equal to -0.1 units equal to -1.7%.

<u>Clusterization</u>. Through the use of k-Means, a clustering of data was also achieved. The algorithm funds three clusters composed as follows:

- Cluster 1: Trentino-Alto Adige, Friuli-Venezia Giulia, Umbria, Lazio;
- Cluster 2: Liguria, Lombardy, Veneto, Emilia-Romagna, Tuscany, Abruzzo, Molise, Basilicata, Sardinia;
- Cluster 3: Piedmont, Aosta Valley, Marche, Campania, Puglia, Calabria, Sicily.

The algorithm confirms the economic and social crisis of Piedmont which is inserted with the low-performance regions of Southern Italy.

Conclusions. Continuing education is an essential element in the creation of the learning society or the learning society. Since the rate of growth and diffusion of technologies will lead not only to the disappearance of some traditional jobs and the appearance of new professions, but rather in the long term it will tend to reduce the profit area of the skills acquired or the "position income" deriving from the "have accumulated knowledge in a study or professional path. In fact, if in the past - up to the last generation - it was legitimate to expect to spend the entire working life in a single company public or private - in the performance of substantially a limited number of tasks, this perspective not only appears difficult in the contemporary world, but rather it will become impractical in the future. Technology aims precisely at replacing the jobs of professionalized people and, after all, the real competence that workers, for that part of the workforce that will want to be active, must develop is precisely the ability to learn. Economist J.K. Arrow, a great economic theorist, in the 1970s wrote an article on learning by doing where he highlighted the importance of this learning technique in economics. It is therefore necessary that both public and private entities and individuals use technology not as a tool for entertainment and divertissement but rather as a tool to learn to acquire knowledge, skills and skills in order to remain active both as workers and as citizens.

Declarations

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