

IZA Journal of European Labor Studies

Regional resilience to Crisis in Greece: exploring demand and supply mismatch in local labor markets --Manuscript Draft--

Manuscript Number:			
Full Title:	Regional resilience to Crisis in Greece: exploring demand and supply mismatch in local labor markets		
Article Type:	Original article		
Funding Information:	<table border="1"><tr><td>EEA Grants and Norway Grants (EEA GR07/3694)</td><td>Not applicable</td></tr></table>	EEA Grants and Norway Grants (EEA GR07/3694)	Not applicable
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Title

1 Regional resilience to Crisis in Greece: exploring demand and supply
2 mismatch in local labor markets
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Abstract

30
31 Soaring unemployment and underemployment has been the bleakest consequence of
32 2009-crisis in Greece. Recent research for implications of recession has focused on
33 labor market resilience, but with little consideration of spatial diversity. Here, we
34 address un/underemployment in Greek target-localities of diverse production structures,
35 to examine demand and supply in post-crisis labor markets. The impact of structural and
36 place-specific factors to employment resilience is explored in local entrepreneurship and
37 labor force surplus. We identify mismatch between skills/qualifications supplied and
38 those in demand in all target-labor markets, resulting from recession-induced
39 employment degradation and work undervaluation, thus inhibiting economic recovery.
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49 **JEL-Classification:** J21, J24, R10

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51 **Keywords:** regional resilience, labor market, skills mismatch
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1. Introduction

Since the onset of the 2008/2009 global crisis, soaring numbers of unemployed and underemployed (i.e. atypical, casual employees who keep looking for a better job) have been the major consequence of recession and cause of socioeconomic exclusion across Europe and especially, in the vulnerable economies of the European South (Bell and Blanchflower 2015). A new landscape of uneven development has been shaped as disparities increased between EU ‘core’ and ‘peripheral’ economies, as well as among regions within national economies. In this context, recent research on regional resilience has particularly focused on the labor market, where the downturn implications are primarily identified. Extensive layoffs and employment flexibilization are the main practices implemented by employers to adjust business costs to falling demand during recession.

Over the seven post-crisis years, Greece has hit record scores in unemployment, long-term unemployment and youth unemployment rates among European and OECD countries (OECD 2015). The severity of the crisis across countries is related to place-specific configurations that define place-specific outcomes. Recent research for the dire implications of recession on the Greek labor market (Gialis and Tsampra 2015) explored unemployment, typical and atypical employment patterns in relation to regional (NUTS2) production structures and industrial specialization. Results revealed the accelerated post-crisis expansion of flexible/atypical employment across all examined regional economies; and indicated that different forms and rates of expansion are related to different regional production systems.

In our research we address unemployment and underemployment (here referring to atypical and casual workers who keep looking for a job) in Greece at the local level

1 (sub-regional spatial units). Target-localities of different production structures and
2 industrial specialization provide diverse case-studies of labor market resilience to
3 economic downturn. Our objective is to explore in each locality the contribution of
4 prevalent entrepreneurship and available labor force to post-crisis employment
5 adjustment, recovery, or hysteresis. To this purpose, first we draw upon aggregate data
6 regarding the demand-side of local labor markets, i.e.: new business entries, hires and
7 lay-offs, type of contracts and employment forms adopted, working time and earnings
8 arrangements. Then, we draw upon field-survey data to investigate the supply-side, i.e.:
9 skills and qualifications of the un/underemployed (constituting the local labor force
10 surplus), their work priorities and career prospects.
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24 Analyses revealed rising rates of labor flexibility across all industries and localities
25 examined, along with further employment degradation in terms of increased
26 precariousness, work undervaluation and low career prospects. As a result, employers
27 report difficulty in finding available employees; while on the other, local qualified labor
28 force is largely out of employment. Findings reflect labor market discrepancy between
29 the skills/qualifications supplied by local labor force surplus and those utilized by local
30 business. We argue that demand and supply mismatch in local labor markets is the
31 cause of low employability, particularly for the young and the highly qualified. In
32 effect, persistent labor demand and supply imbalance undermines positive employment
33 trends and impedes labor market recovery.
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50 **2. Regional labor market resilience - Research background**

51 The theoretical discussion and methodology to define ‘regional economic resilience’ has
52 been the focus of recent research on the diverse geography of crisis outcomes
53 (Fingleton, Garretsen and Martin 2012, 2014). As concisely described by Martin and
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1 Sunley (2014), a part of the literature has related regional resilience to the regional/local
2 economy's place in the broad national or international context - and thus, to global
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4 division of labor, macroeconomic conditions and institutional configurations. Another
5
6 significant line of research has associated regional resilience to the regional/local
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8 economy's production structures – i.e. local industrial composition, specialization and
9
10 competitiveness (Crescenzi, Luca and Milio 2016). Finally, many scholars have put
11
12 emphasis on the role of place-specific attributes and relations between agents of the
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14 regional/local economy that differentiate production patterns, industrial
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16 interdependencies, entrepreneurship and human capital - i.e.: path-dependent growth,
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18 industrial specialization, business structures, labor skills, institutional and regulatory
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20 context (Doran and Fingleton 2015).
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27 In the aforementioned context, analyses of macroeconomic factors have provided
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29 explanation of how an economy's pre-crisis condition defines its resilience or hysteresis
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31 to recessionary shock. Yet, despite the significance of a healthy current account surplus
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33 and public debt on the national level, macroeconomic factors cannot explain the
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35 differentiated response of equivalent regional economies to recession. Analyses of
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37 structural factors have furthermore associated regional divergence to different industrial
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39 specialization, human capital composition and innovation among diverse production
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41 systems. Still, rising and falling employment rates form a complex landscape of
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43 regional resilience and vulnerability - at least, in the short term - that is not adequately
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45 defined on this basis. (Crescenzi, Luca and Milio 2016)
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51 Along this line, research by Lagravinese (2015), exploring regional resilience during
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53 recession periods of the Italian economy through time, has affirmed that neither
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55 macroeconomic conditions nor structural factors can adequately interpret regional
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1 differentiation of resilience to downturn. Thereby, place-specific factors - that affect
2 regional industrial and employment configurations - were taken into account, i.e.: local
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4 business weaknesses or advantages, institutional specificities, infrastructure sufficiency,
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6 spatial unevenness, flight of skilled labor, etc. The consideration of such regional/local
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8 attributes enabled the justification of the post-crisis plunge of Italy's most competitive
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10 flourishing manufacturing regions, in contrast to the strong resilience demonstrated by
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12 non-competitive regions of public administration services.
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17 On this ground, recent research on Greek labor market's regional resilience to economic
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19 downturn (Gialis and Tsampra 2015) explored pre- and post-crisis patterns of
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21 unemployment, typical/full and atypical/flexible employment in relation to both
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23 structural and regional (place-specific) factors in a homogenous macroeconomic context
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25 of crisis and deep recession. As identified, atypical employment forms have
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27 increasingly expanded in all regional labor markets, but in different ways. Diverse
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29 expansion patterns reflect lower/higher or increasing/decreasing rates; and lower/higher
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31 flexibility and precariousness. Diversity responds to different regional production
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33 systems (metropolitan or provincial, specialized in tourism, manufacturing, or
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35 agriculture) of diverse resilience levels.
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42 This paper presents findings of current research on unemployment and
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44 underemployment at the local level in Greece, by going further to capture quantitative
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46 and qualitative aspects of increasing post-crisis discrepancy between labor demand and
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48 supply. Persistent labor demand and supply imbalance is costly for individuals,
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50 employers and entrepreneurship, economy and society as a whole (World Economic
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52 Forum 2014). In research it is identified either as 'shortage' when there is no sufficient
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54 number of workers in the labor market; or, as 'mismatch' when the number of workers
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1 with specific skills is not sufficient for employers' needs. Much of related literature
2 distinguishes skills from qualifications: skills are difficult to measure as they grow in
3 work, at the workplace; while, qualifications can be easily defined by the level of
4 educational attainment (Zimmer 2012). Skills and qualifications are both critical assets
5 for economic competitiveness and recovery from economic downturn. Consequently,
6 matching skills/qualifications and jobs has become an issue of vital importance.
7

8 Skills/qualifications and jobs mismatch existed prior to this crisis, as an outcome of
9 global economic restructuring processes. Technological advance has marginalized low-
10 skills jobs, as emerging jobs require higher skills and educational level (CEDEFOP
11 2010). However, the recent crisis and recession has delayed and even reversed this
12 course, especially in the more distressed EU economies. The Greek economy's
13 industrial innovation and competitiveness has significantly slowed down, while at the
14 same time the share of highly-skilled in unemployment has increased (Herrmann and
15 Kritikos 2013). On the other hand, despite precedent high unemployment rates in
16 Greece (also France, Spain and Portugal), employers report difficulties in finding
17 suitably skilled workers (Manpower Group 2013). This imbalance is largely attributed
18 to 'overqualification' (World Economic Forum 2013).
19

20 In theory, the number of hires depends on matching labor supply to demand. In reality
21 however, matching up labor supply and demand depends on a complex set of factors
22 and conditions - i.e. labor market heterogeneity, imperfect circulation of information,
23 etc. - causing imbalance (even when supply and demand correspond perfectly). As
24 elaborated by Zimmer (2012), labor market tensions may be of cyclical, frictional, or
25 structural nature; yet, the various types of tension also influence each other. In other
26 words, structural tension - e.g. when the qualifications of the labor force surplus do not
27

1 correspond to the skills demanded by employers, can cause frictional tension - e.g.
2 prolonged recruitment process; and cyclical tension - e.g. due to a period of economic
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4 downturn, can be exacerbated by structural labor mismatch and give rise to cyclical
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6 unemployment (Zimmer 2012).
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10 The 2009 crisis in Europe resulted to the drop of job vacancy rates and to the increase of
11
12 job-seekers rates. In countries moderately hit by the shock, economic recovery has
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14 signaled the increase of job vacancy rate and a disproportionately small drop of
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16 unemployment rate (that remains above pre-crisis level) (Zimmer 2012; De Mulder and
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18 Druant 2012). This mismatch can be arguably related to the degree in which job-
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20 seekers' skills and qualifications correspond to post-crisis structural shifts in European
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22 economy and thus, to changed employers' needs. In severely crisis-hit Greece, the
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24 mismatch is more profound: low-skilled workers (accounting for one-third of the labor
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26 force) recorded a proportional share in unemployment. But the biggest drop of
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28 employment rate was recorded by the highly-skilled workers (World Economic Forum
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30 2014). For a coherent interpretation, several qualitative and quantitative aspects of the
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32 Greek labor market are explored in the following section.
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40 **3. Exploring labor market resilience at post-crisis target-localities**

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43 The objective of this paper is to explore labor market resilience at target-localities of
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45 diverse structural and regional characteristics, typical of the Greek economy. We
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47 particularly focus on labor market discrepancies between: (i) labor demand, i.e. jobs
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49 offered by local business, as depicted in number of hires and forms of employment
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51 (flexibility, working hours, earnings); and (ii) labor supply, i.e. skills/qualifications,
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53 employment priorities and career aspirations of local labor force surplus. In order to
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1 grasp the impact of structural and place-specific factors, the research concentrates in the
2 sub-regional spatial units of Arcadia, Laconia, Rhodes and Kastoria.
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5 These areas serve our research as suitable case-studies for two reasons. First, they
6 represent production systems of different industrial structures and employment
7 specialization (Tripoli in services, Laconia in agriculture, Rhodes in tourism and
8 Kastoria in manufacturing). Second, they constitute diverse regional settings defined by
9 different territory-specific and path-dependent growth patterns (respectively central,
10 mainland, border or island areas of diverse physical resources and socioeconomic
11 assets). Nevertheless, despite their structural and regional differences, all target-
12 localities share a common macroeconomic and social context shaped by crisis and
13 recession.
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27 Seeking to explore regional resilience to economic downturn, we examine the capacity
28 of local labor markets to maintain or generate employment. The demand-side of
29 targeted labor markets is delineated in Section 3.1, by secondary data retrieved from
30 ERGANI Information System (Greek Ministry of Labor, Social Insurance and Welfare)
31 and IME-GSEVEE (Institute of Small/Micro Enterprises). We particularly investigate
32 the employment strategies and practices adopted by small firms which prevail in the
33 local business sector. The supply-side is outlined in Section 3.2, primarily by field-
34 survey data gathered from unemployed and casually employed job-seekers in target-
35 localities. Particular emphasis is put on skills/qualifications and other factors defining
36 their employability in the examined local economies. A limited number of informative
37 interviews with employers also provide valuable feedback.
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54 **3.1. The demand-side**

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1 Nearly seven years since the crisis outbreak, small and micro enterprises (SMEs) in
2 Greece still form the backbone of the country's business sector, but struggle with an
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4 unprecedented economic contraction in the EU. In 2008-2014, employment in SMEs
5
6 dropped by more than 450,000 to an estimated 1.8 million. Yet, recent data suggest a
7
8 modest employment increase since 2015. (Figure 1a, 1b)
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12 **Figure 1a. SMEs Employment change**

13 Index: 2008=100, estimates as from 2013 onwards

14 Source: 2015 SBA Fact Sheet: Greece, EC 2016
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18 **Figure 1b. SMEs balance of hires and layoffs**

19 Source: IME-GSEVEE 2016
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22 A most recent survey by the Institute of Small/Micro Enterprises (IME-GSEVEE 2016),
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24 biannually conducted at national scale, records the negative performance of Greek
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26 SMEs in turnover, demand and orders. Just 2 in 10 enterprises showed profits in 2015,
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28 while nearly 4 in 10 suffered losses. Consequently, the number of SMEs facing the
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30 possibility of closure (according to their statement) is high across all sectors/industries
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32 and regions - although the higher number of SMEs that do not share this fear (Figure 2).
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35 In 2010-2016, the majority of surviving SMEs show stabilized employment; those of
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37 decreased employment are becoming less, while a modest share shows increased
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39 employment (Figure 3). However, recent positive trends cannot adequately establish the
40
41 contribution of Greek SMEs to employment resilience or labor market recovery.
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47 **Figure 2. SMEs fear of closure, 2009-2016**

48 Source: IME-GSEVEE 2016
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51 **Figure 3. SMEs employment, 2010-2016**

52 Source: IME-GSEVEE 2016
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55 Focusing on significant labor market shifts towards post-crisis employment patterns, our
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57 data analysis reveals the increasing turn of SMEs towards highly flexible employment
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1 forms (IME-GSEVEE 2016, Figure 4). As established in previous research across
2 Greece's regional labor markets (Gialis and Tsampra 2015), flexible or atypical
3 employment had already emerged prior to the crisis as a business practice to adjust
4 working costs to global competition. But recession has given further impetus to labor
5 flexibility. The share of part-time and rotation workers in total SMEs hires has
6 increased, particularly after 2014, in the period of positive employment indications
7 (Figure 5). In the same period, the share of full-time employment in total hires dropped
8 from 64.4% in 2013 to 45.5% in 2016 (ERGANI).

19 **Figure 4.** SMEs using flexible labor, 2010-2016

20 Source: IME-GSEVEE 2016

23 **Figure 5.** Hires by type of contract, 2013-2016

24 Source: ERGANI; Authors' compilation of SMEs data

25 According to ERGANI data for the same period (2013-2016), the number of
26 employment contracts converted from full-time to part-time and rotation work is
27 significant and increasing (either with, or without the employee's consent) (Figure 6).

30 **Figure 6.** Contracts converted from full-time to part-time and rotation work, 2013-2016

31 Source: ERGANI; Authors' compilation of data for SMEs

32 Data on working time show that, despite the predominance of full-time employment
33 (≤ 35 hours per week), the number of employees working for just 2-4 hours per week
34 increased by 54.5% from 2013 to 2015 (the highest increase in the range of working
35 hours per week). As expected, the percentage of part-time or rotation workers with
36 monthly earnings $\leq 500\text{€}$ also increased by more than 30% from 2013 to 2015. But in the
37 same period, the percentage of full time employees with monthly earnings of 500-600€
38 (forming the group of lowest monthly earnings in a range of 2,500€ to 500€) had the
39 highest increase of nearly 50%. The smallest group of employees is that of the highest

1 monthly earnings (of $\geq 2,500\text{€}$) and recorded a further drop of around 5% from 2013 to
2 2015, indicating the decline and devaluation of jobs for the most skilled and qualified.
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5 On the ground of aforementioned findings it can be argued that the expanding patterns
6 of work flexibilization, implemented by the majority of Greek SMEs, may exacerbate
7 labor market hysteresis, *instead of resilience*, as employment disintegration and
8 persistent long-time unemployment profoundly undermine recovery prospects. To
9 further explore this assumption, we trace employment patterns in the service economy
10 of Arcadia, agricultural Laconia, manufacturing Kastoria and tourism-based Rhodes
11 (according to LQ for employment and GDP: Gialis and Tsampra 2015).
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22 **Figure 7.** SMEs number % change, 2013-2015

23 Source: ERGANI; Authors' compilation of SMEs data
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25 **Figure 8.** SMEs employment change %, 2013-2015

26 Source: ERGANI; Authors' compilation of SMEs data
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28 ERGANI data for the number of SMEs and SMEs employees in each target-area for the
29 period 2013-2015, allow the identification of positive trends. On national scale,
30 enterprises with employees increased by 13.3% from 2013 to a total of 222,284 in 2015
31 (of which 97.4% in the private sector). As depicted (Figure 7), the number of enterprises
32 in Arcadia and Laconia has increased by 7.17% and 10.32% respectively, moderately
33 below the national average. In contrast, Kastoria and Rhodes are found at extreme
34 opposites: the number of enterprises fell by 4.12% in Kastoria, following the decline of
35 manufacturing; while it increased by 69.44% in Rhodes, reflecting the flourishing
36 tourism activity.
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52 Changes in the number of employees between 2013 and 2015 evolved accordingly
53 (Figure 8): Arcadia and Laconia recorded increases of 17.17% and 23.57% respectively;
54 Kastoria recorded a marginal increase of 2.11% and at the other extreme, paid
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1 employment in Rhodes rose by 122.36%. On national scale, the increase was 18.43% in
2 the same period. These positive trends could be considered as evidence of labor market
3 resilience and/or recovery sustained by structural and regional factors in the respective
4 local economies. Marginal employment gains in Kastoria are attributed to the decline of
5 prevalent local enterprises in manufacturing; while skyrocketing employment in Rhodes
6 is the outcome of prospering local business in tourism.
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14 Yet, the analysis of ERGANI data on the balance of paid employment flows (hires and
15 lay-offs by SMEs) in the examined local economies during 2013-2016, is more
16 revealing. In Kastoria the balance is mainly negative as hires are outweighed by lay-
17 offs. In Arcadia and Laconia the balance ranges near zero values throughout the period
18 of reference, as lay-offs counteract hires. In contrast, the dramatic fluctuations depicted
19 in Rhodes clearly indicate the seasonal pattern of employment in tourism (rotating
20 between summer and winter periods). (Figure 9)
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32 **Figure 9.** Balance of paid employment flows (hires and lay-offs), 2013-2016

33 Source: ERGANI; Authors' compilation of data on SMEs employment
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36 As illustrated, structural differences across the examined local economies have diverse
37 outcomes in respective labor markets. The towering rates of business entries and hires
38 in Rhodes clearly indicate the dynamic of tourism in the area. Territorial specificities,
39 related to path-dependent conditions and practices also contribute to local business and
40 labor capital's responsiveness to this industry. Findings for the labor market of Kastoria,
41 Arcadia and Sparta further sustain this argument. However, it is also revealed that such
42 evidence does not adequately establish labor market resilience. Excessive employment
43 flexibility in Rhodes, as depicted by the balance of hires and layoffs, contests all
44 positive trends of the local labor market. The consideration of qualitative dimensions
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1 regarding business and employment patterns, in terms of stability, earnings, security,
2 skills/qualifications requirements (among others) is necessary for valid conclusions.
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5 **3.2. The supply-side**

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7 Over the seven years of recession in Greece, unemployment rate (as percentage of total
8 labor force) has reached the highest score in Europe and the second highest among
9 OECD countries (24.7% against 6.7% OECD average, 2015Q3). Long-term
10 unemployment (of one year or more) also records the highest rate (percentage of total
11 unemployment) in Europe and among OECD countries (73.7% against 32.7% OECD
12 average, 2015Q3). But it is the young that have been more severely hit: nearly 50% of
13 those aged 15 to 24 years old are unemployed (three times higher than OECD average);
14 and the rate of those neither in employment nor in education or training has
15 skyrocketed, raising the difference from the OECD average from 3% in the onset of the
16 crisis to 13% in 2014. (Bell and Blanchflower 2015; OECD 2015)
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32 Despite positive trends after 2014, the employment rate in Greece is the lowest in
33 Europe and among the lowest in OECD (51.1%, against 66.2% OECD average,
34 2015Q3). The employment rate of low-skilled (percentage of the low-skilled aged 15-
35 64) is below the European average (49.8% against 55.2%, 2015Q3), indicating low
36 employability for those with less than upper-secondary educational attainment. Yet, the
37 employment rate of high-skilled (percentage of the high-skilled aged 15-64) is the
38 lowest in Europe and recorded the biggest drop since 2009. In terms of qualifications, 2
39 in 5 of those with tertiary educational attainment in Greece are out of employment
40 (OECD 2015). Such evidence implies the setback of Greek economy's innovation-
41 oriented restructuring. The shift of the country's labor market towards low-cost and
42 low-skills/qualifications employment inhibits recovery and competitiveness.
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Our aim is therefore to investigate the causes of low employability in targeted Greek labor markets, with particular focus on the highly skilled/qualified who are out of employment or in atypical/casual employment. To this purpose, we distinguish between job-seekers of low and high levels of skills/qualifications; industries and economic activities of low- and high-specialization, jobs of low- and high-skills requirement. In this framework of analysis we are able to examine discrepancies in the labor markets of Arcadia, Laconia, Kastoria and Rhodes; and the suitability of skills/qualifications supplied to the current needs of employers. Due to the lack of local data, a field-survey was conducted with the use of structured questionnaire administered exclusively to unemployed and atypical/casually employed job-seekers (referred here also as underemployed).

The questionnaire focuses on: (i) the type of jobs provided by prevalent local business - in terms of employment stability and security, earnings, required skills/qualifications, etc.; and (ii) the type of jobs pursued by local labor force - in terms of employment stability and security, skills/qualifications level, career prospects, etc. Given the fact that our research addresses a sample of unemployed or underemployed, we do not divide skills from qualifications in our analysis (despite questions for previous job position and work experience, as well as for the educational level of respondents). Labor skills cannot be assessed in our case as respondents are practically out of the working place for a long or shorter period, or temporarily in work.

Another concern regarding our analysis was to overcome biases related to the nature of the sample. It could be assumed that since our respondents are unemployed or underemployed searching for a job, it is expected that either they are temporarily in non desired/non voluntary employment or they are not suitably qualified for better

1 employment (of higher career prospects, earnings and stability). To resolve this issue,
2 we consulted data for Greek enterprises (FEIR 2016 for GEM) on post-crisis emerging
3 entrepreneurship (new entries, hires etc.); and recent studies on regional labor markets
4 needs (National Strategic Reference Framework 2014-2020) indicating post-crisis
5 prevailing economic activities. In result, although the economic basis (GDP and total
6 employment) of the Greek regions has not drastically changed, we identify recent trends
7 of entrepreneurship and employment which are also established in our research.
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10 The field-survey was carried out during 2015Q1, through snowball sampling by
11 subjects who live in the target-areas, therefore had access to local social networks.
12
13 Approximately 700 respondents were addressed through snowball sampling and
14 provided 673 valid responses. Our conclusive sample consists of unemployed by 58.8%
15 and underemployed/atypically employed by 41.2%. The largest age-groups are of 18-24
16 and 25-34 years old respondents (with equivalent shares) accounting for 62.8% of the
17 sample. In all age-groups (from 18 up to 64 years old), half of respondents are tertiary
18 education graduates. Nearly half (48%) of total sample have been looking for a job for
19 more than one year. Approximately 12% of respondents have never been in
20 employment, i.e. mainly the younger ones. The latter have the largest share among
21 respondents financially supported by their family (60% of total sample); while just
22 15.2% of respondents are on social allowance.
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25 Half of the respondents previously or currently employed (88% of total sample) are in
26 economic activities of low specialization, i.e. mainly restaurants and bars (23.7%), retail
27 trade (14.6%) and hotels (9.5%) (Figure 10). These are arguably the industries
28 providing the more employment opportunities in the examined local labor markets and
29 at the national level as well (FEIR 2016). Moreover, the vast majority of respondents
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1 (62.6% of total sample) has been, or currently is, in job positions of low-skills, i.e.
2 general duties (Figure 11). Thus, an issue to explore is whether labor concentration in
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4 industries/jobs of low specialization is an indication of large shares of low-skilled and
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6 low-qualified job seekers in target-localities. Another issue is whether the high
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8 concentration of respondents in low-skills jobs signifies the high employability of the
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10 low-skilled, or the undervaluation of the high-skilled.
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14 **Figure 10.** Jobs distribution across industries/economic activities

15 Source: Authors' compilation of field-survey data
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18 As expected, the industrial distribution and concentration of jobs in all target-localities
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20 signifies the expansion of flexible and atypical employment forms, as casual and
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22 seasonal work is a structural characteristic of the aforementioned industries (Figure 12).
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24 In effect, full-time jobs account just for 20% of our sample; while seasonal/temporary
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26 jobs have the highest share (33.4%) followed by part-time jobs (22.9%) and a
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28 significant number of undeclared/uninsured jobs (12%).
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34 **Figure 11.** Respondents by job position

35 Source: Authors' compilation of field-survey data
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38 **Figure 12.** Respondents' employment status

39 Source: Authors' compilation of field-survey data
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42 However, the depicted findings for job opportunities and hires in the targeted labor
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44 markets are contradicted by findings for the kind of job respondents are looking for
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46 (Figure 13). The highest share of our sample has been seeking for high-skills jobs in
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48 economic activities of professional, scientific and technical services (18.2%) and health
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50 and education services (11.6%). As both these fields of economic activity require the
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52 highest professional qualifications, we can safely assume that one-third of our sample of
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54 un/underemployed respondents fulfill these requirements. Comparing with findings on
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1 jobs distribution across economic activities (Figure 10), we identify a mismatch
2 between low-skills jobs provided by local enterprises/employers (largely in restaurants,
3 bars, hotels and retail) and high-skills jobs pursued by local labor force surplus (mainly
4 in high-qualifications service provision).
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10 **Figure 13.** Job-seekers distribution across industries/economic activities

11 Source: Authors' compilation of field-survey data

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14 As observed, the share of respondents looking for jobs in the public sector (14.9%) is
15 also significant and mainly attributed to reasons of stability in employment and income,
16 but also to career prospects for the highly qualified. On the other hand, the share of
17 respondents looking for low-skills jobs in the sectors of higher job vacancies
18 (restaurants, hotels and retail trade) is also significant (accounting for nearly 30% of
19 total sample, as well). Arguably, it is largely attributed to the prevalence of related
20 entrepreneurship in the local economy, thus, to numerous hires and low competition.
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31 To explore related assumptions and establish our arguments, we further proceed with
32 cross-tabulations and t-test analysis based on the level of qualifications attained by
33 respondents, as defined by their educational level. In our research sample, we identify
34 three distinct groups of education attainment: (a) tertiary & post-tertiary education, (b)
35 technical or other post-secondary education and (c) secondary or lower education. The
36 share of primary education graduates in total sample is negligible. Accordingly, we
37 define corresponding groups of skills/qualifications: (a) highly qualified, (b) medium
38 qualified and (c) low qualified.
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51 Within this framework of analysis, it is found that the high share of those looking for
52 high-skills jobs, i.e. in professional and scientific services, health and education, is
53 strongly related to compatible/corresponding educational qualifications (Table 1). As
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depicted, the majority (58.8%) of highly qualified respondents is seeking for jobs of high specialization (health, education, professional and scientific services). Still, 25.7% of highly qualified respondents are seeking for jobs in low specialization industries (restaurants and bars, tourism, retail) - arguably due to wide job vacancies in the respective industries. The shares of those medium and low qualified that look for jobs of lower-than-their-own specialization, are higher (36% and 53% respectively) - assumingly due to respondents' lower employability.

Table 1. Distribution of respondents in sectors they look for job and educational level

Sector/ Educational level		Tertiary & post-tertiary education	Technical post-secondary education	Secondary or lower education	Total
Health, Education, Culture/ Professional, scientific services	Within sector	80.8%	11.6%	7.6%	100%
	Within educational level	58.8%	20.7%	8.9%	35.9%
Agriculture/ Manufacturing/ Wholesales/ Construction etc.	Within sector	27.3%	31.2%	41.6%	100%
	Within educational level	15.4%	43.2%	38.1%	27.9%
Restaurants, Bars/ Tourism/ Retail trade	Within sector	35.2%	20.1%	44.7%	100%
	Within educational level	25.7%	36%	53%	36.1%
Total	Within sector	49.4%	20.1%	30.5%	100%
	Within educational level	100%	100%	100%	100%

Note: Chi squared 132.94; df. 4; sig. 0.000. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 31.02.

Source: Authors' compilation of field-survey data

A set of field-survey questions required from respondents to rank their priorities for accepting a job. As revealed, respondents give higher priority to employment insurance (48.4%) and then to qualification suitability and career prospects (38%), than to employment stability and high earnings. Additionally, respondents give higher priority to employment insurance (58.4%), coverage of minimum wages (57.2%) and overtime work (56.7%), than to qualifications suitability and employment stability. These results provide explanation for the high shares of respondents in, or looking for, jobs that at least provide basic economic coverage (insurance, minimum wages, etc) - irrespectively of work stability, career prospects etc. In other words, even highly qualified job-seekers are significantly driven by necessity in times of deep recession.

1 Analyzing responses to field-survey questions exploring perceptions towards
 2 entrepreneurship/self-employment we identify two distinct sets: one, referring to
 3 entrepreneurship driven by choice and opportunity; and the other, referring to
 4 entrepreneurship driven by necessity. As indicated, equal shares of respondents would
 5 start up a business to capitalize their qualifications and innovative ideas, as well as to
 6 secure income stability and employment insurance. Breaking down responses to the
 7 economic activities of potential entrepreneurship, we find that respondents oriented to
 8 entrepreneurship of high specialization (health, education, professional and scientific
 9 services) are driven primarily by choice (90% to 95%) based on their qualifications.
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11 Analysis shows that the level of qualifications is not statistically significant for
 12 unemployment or underemployment, but defines the sector/industry of respondents'
 13 employment (Table 2). In fact, 60% of respondents in jobs of high specialization
 14 (professional and scientific services etc.) are highly qualified. Yet, in jobs of
 15 medium/technical specialization (manufacturing, personal services, etc.) 49.5% of
 16 respondents are also highly qualified (and just 15.9% are of technical qualifications. As
 17 a matter of fact, half of the highly qualified respondents are, or were, in jobs of medium
 18 specialization. In other words, under current conditions of high unemployment,
 19 employers have the opportunity to recruit personnel of qualifications higher than
 20 required for the job. The level of qualifications also plays a significant role for jobs in
 21 public administration, where 71.8% of respondents are highly qualified. (Table 2)
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23 **Table 2.** Respondents in sectors of employment according to educational level
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25 Educational level / Sector	26 Tertiary & post- 27 tertiary education	28 Technical post- 29 secondary education	30 Secondary or 31 lower education	32 Total
33 Public administration	34 71.8%	35 15.5%	36 12.6%	37 100%
38 Restaurants & bars/ Tourism/ Retail trade	39 32.9%	40 32.9%	41 39.5%	42 100%

Agriculture / Manufacturing/ Wholesales/ Construction/ Personal services	49.5%	15.9%	34.6%	100%
Health, Education, Culture/ Professional, scientific & technical services	60%	16.7%	23.3%	100%

Note: Chi squared 63.2; df. 6; sig. 0.000. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 12,27.

Source: Authors' compilation of field-survey data

Qualifications are also important for the job position in respondents' previous or current work (Table 3). In jobs of high skills and responsibility (executive, manager, scientist) 48.9% are highly qualified respondents. Yet, in jobs of low skills (general duties) 49.5% are highly qualified respondents, as well. In fact, the vast majority of highly qualified (68.2%) and low qualified (77%) respondents are in jobs of low skills.

Table 3. Distribution of respondents in job position and educational level

Job position/ Educational level		Tertiary & post- tertiary education	Technical post-secondary education	Secondary or lower education	Total
Executive/ Manager/ Specialized personnel	within job position	48.9%	29%	22%	100%
	within educational level	31.8%	46.6%	23%	32.1
General duties	within job position	49.5%	15.7%	34.8%	100%
	within educational level	68.2%	53.4%	77%	69.9%
Total	within job position	49.3%	20%	30.7%	100%
	within educational level	100%	100%	100%	100%
	Total	49.3%	20%	30.7%	100%

Note: Chi squared 17.847; df. 2; sig. 0.000. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 37,20.

Source: Authors' compilation of field-survey data

In terms of employment relations, it was found that proportionate large shares of highly, medium and low qualified respondents are, or were, in flexible/atypical employment (seasonal/temporary, part-time, casual/hourly-paid, freelance/self-employed). As indicated, a higher level of qualifications does not ensure employment of lower precariousness (Chi squared 2.714; df. 6; sig. 0.606). Furthermore, in each distinct group of qualifications level, 10.8% to 13.2% of respondents are in undeclared/uninsured employment. This is further evidence of labor market post-crisis deterioration, because although undeclared work has always been a significant feature

of the Greek economy, it specifically concerned the unqualified workers (in clothing and garments manufacturing, catering and restaurants) (ILO 2016).

Yet, even in flexible and atypical employment, the matching between job duties/requirements and workers capabilities is differently assessed by the respondents, depending on their level of qualifications. More than half (53.9%) of those highly qualified consider their work duties as beneath their capacities. As expected, the share is much lower for medium qualified (36.7%) and low qualified (36.5%) respondents. In other words, results indicate the higher extend of skills underutilization and thus, of mismatch between job and qualifications, for those more highly qualified (Table 4).

Table 4. Job-qualification mismatch according to respondents educational level

Job duties/ Educational level	Tertiary & post-tertiary education	Technical post-secondary education	Secondary or lower education	Total
job duties= qualifications	41.6%	61.7%	55.1%	100%
job duties> qualifications	4.4%	1.7%	8.4%	100%
job duties< qualifications	53.9%	36.7%	36.5%	100%

Note: Chi squared 25.072; df. 4; sig. 0.000. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 6,09.

Source: Authors' compilation of field-survey data

This evidence also verifies the argument that in conditions of recession and soaring unemployment and in a context of low-specialization entrepreneurship and work, labor skills and qualifications are not valued; and large shares of highly qualified workers end up in jobs where their capacities cannot be maintained, improved and capitalized. Moreover, the underutilization of skills and qualifications results to loss of the initial investment in them and to costly re-adjustment.

4. Conclusions

Our analysis of targeted labor markets in post-crisis Greece primarily identified the vast expansion of atypical employment in all industries and localities. This has led to drastic

1 compression of working time and earnings; rise of part-time and rotation work at the
2 expense of typical full-time work; and vast conversion of full-time employment
3 contracts to casual work arrangements. The extent of labor flexibilization is spatially
4 differentiated due to diverse path-dependent structural and regional factors that shape
5 local economies. The case of tourism-based Rhodes provides a typical example of
6 towering hires and also massive layoffs, following the peaks and troughs of the touristic
7 period. Still, intense labor flexibilization has arguably contributed to a modest increase
8 of employment rates in all target-localities over the last couple of years.

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20 But despite positive employment signs - following positive trends in entrepreneurship -
21 we argue that evidence does not establish labor market resilience, or recovery. Our
22 research findings in all target-economies indicate that local business cannot provide
23 employment opportunities that meet the qualifications and make use of the capacities of
24 available highly educated labor force. Instead, job offers - in all examined production
25 systems - undervalue qualified labor and professional expertise in every aspect: skills
26 and duties requirements, earnings, productivity, stability and security, career prospects
27 etc. As indicated, highly qualified labor supply outpaces demand and thus, vast
28 unemployment and atypical/casual employment at the local level is the outcome of
29 prevalent entrepreneurship's weakness to adjust to high-value competitiveness.

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44 Labor demand of low specialization and high precariousness is the flip-side of work
45 undervaluation and employment degradation, eventually undermining economic
46 recovery from recession. Accordingly, the difficulties reported by local employers in
47 finding available workers are not related to skill deficits, but rather to uncompetitive
48 wages, unattractive working conditions and poor career prospects for 'overqualified'
49 job-seekers. The examined local economies are typical of Greece's specialization (far
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1 above the EU average) in tourism, trade, agriculture and manufacturing of food and
2 beverages – represented by the catering (restaurants and bars) and hotel industry in our
3 research. But industries of low specialization and high dependence on demand cannot
4 sustain growth.
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10 Furthermore, employment deterioration below threshold standards is likely to lead the
11 economy to a path of limited growth in sectors of low added value. Compressed wage
12 distribution is associated with compressed skill structures and high unemployment
13 (Jovicic 2016). In fact, the Greek economy lacks a competitive industrial structure,
14 while the 2009-crisis and ensuing recession has further delayed, or even reversed,
15 processes of innovative restructuring (Herrmann and Kritikos 2013). On this ground, we
16 suggest future research towards an innovative approach for inclusive socio-economic
17 recovery and sustainable growth, through the smart capitalization of place-based skilled
18 and qualified human resources.
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Funding

The research is supported by a grant from Iceland, Liechtenstein and Norway. Through the EEA Grants and Norway Grants, Iceland, Liechtenstein and Norway contribute to reducing social and economic disparities and to strengthening bilateral relations with the beneficiary countries in Europe. The three countries cooperate closely with the EU through the Agreement on the European Economic Area (EEA). For the period 2009-14, the EEA Grants and Norway Grants amount to €1.79 billion. Norway contributes around 97% of the total funding. Grants are available for NGOs, research and academic institutions, and the public and private sectors in the 12 newest EU member states, Greece, Portugal and Spain. There is broad cooperation with donor state entities, and activities may be implemented until 2016. Key areas of support are environmental protection and climate change, research and scholarships, civil society, health and children, gender equality, justice and cultural heritage.

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Acknowledgements

We are grateful for the EEA grant^b from Iceland, Liechtenstein and Norway, that supported this research.

We also wish to thank R. Gkerats for compiling and editing ERGANI data to produce comprehensive tables and figures supporting our analysis; and D. Bimpas for providing useful research data from IME-GSEVEE research on the Greek SMEs.

We are finally thankful to the Editor and anonymous referees for useful comments and critique.

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^b EEA-GR07/3694: Supported by a grant from Iceland, Liechtenstein and Norway



Figure 1a.

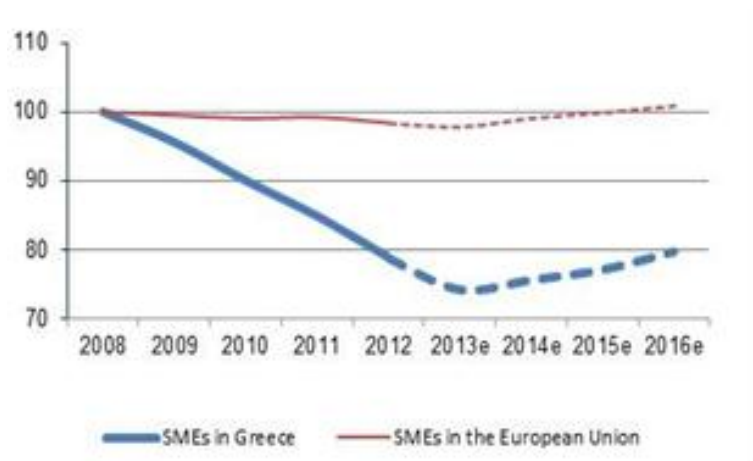


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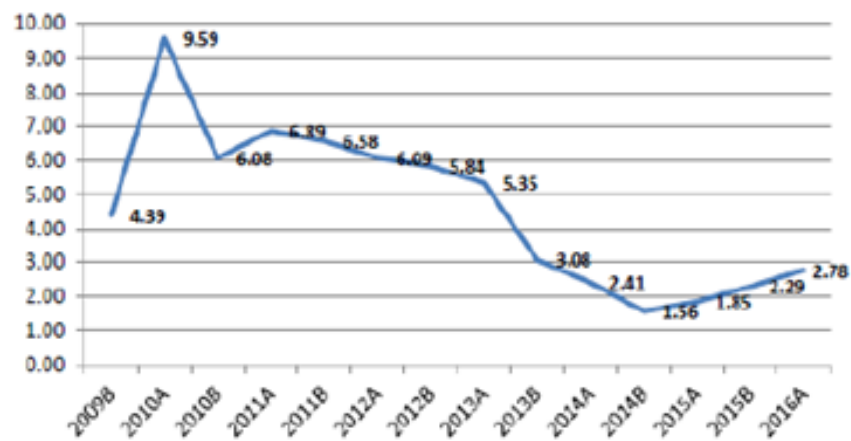


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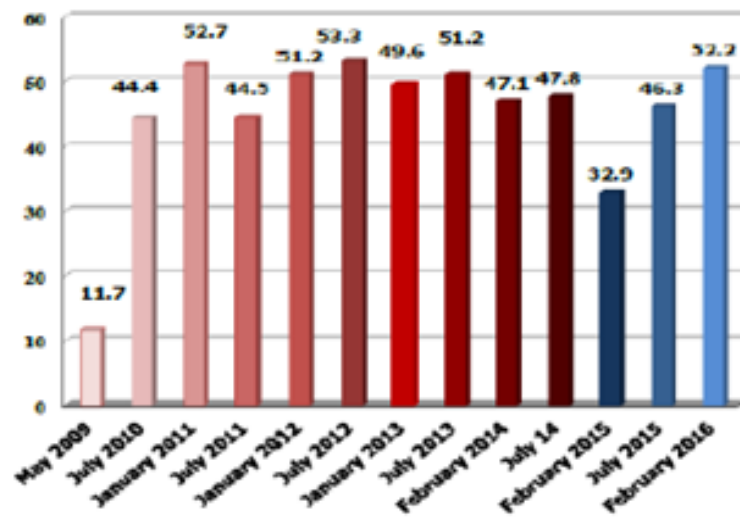


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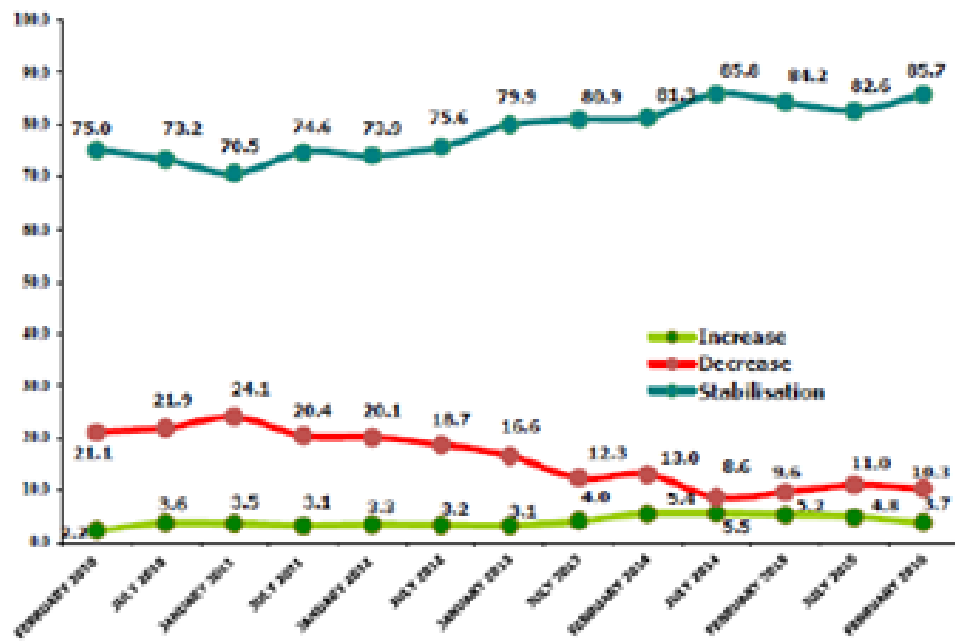


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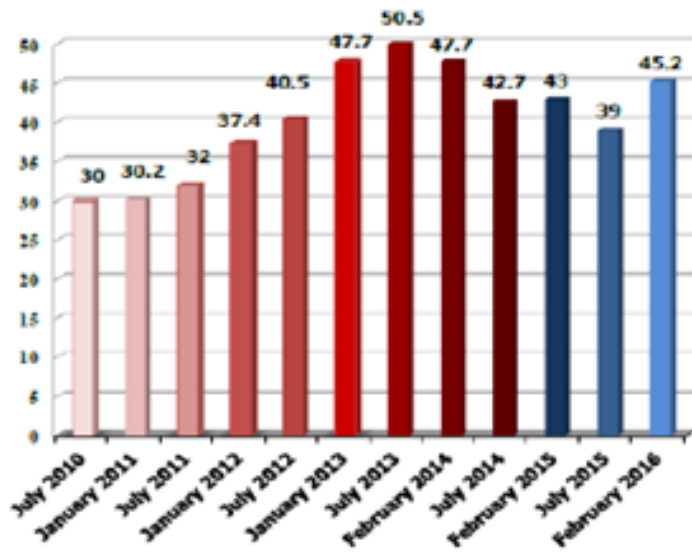


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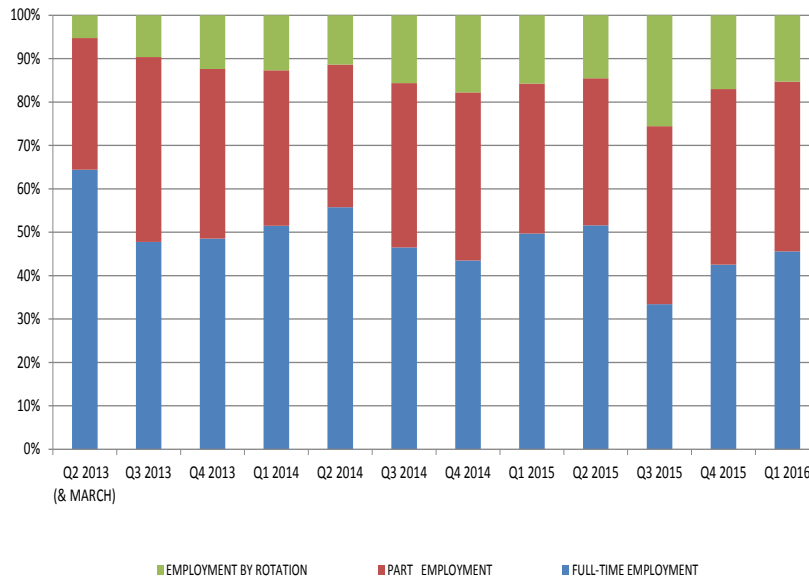


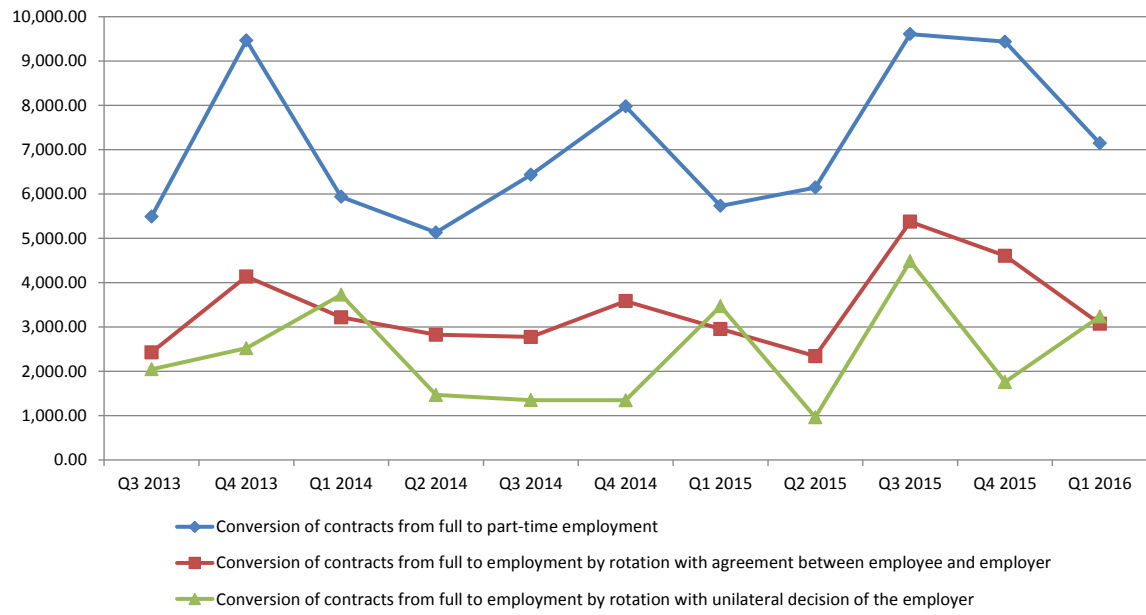
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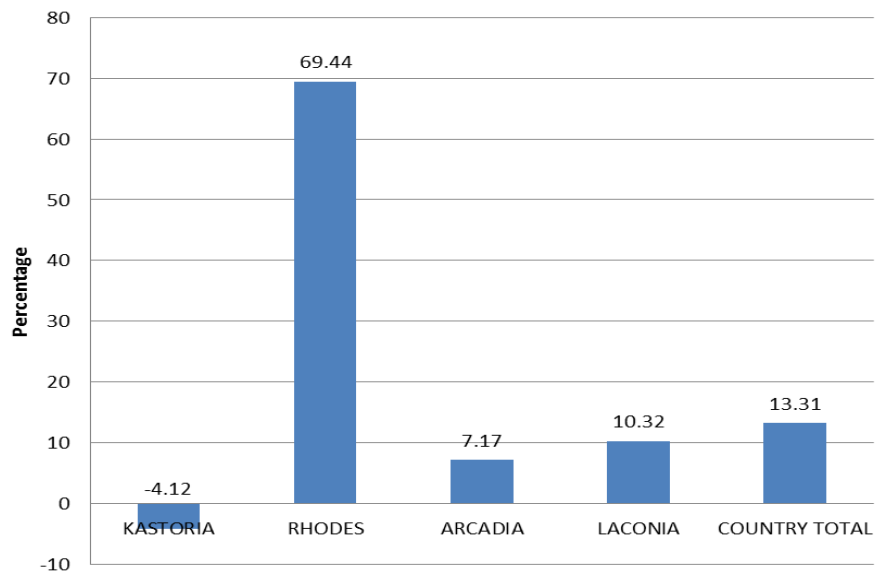
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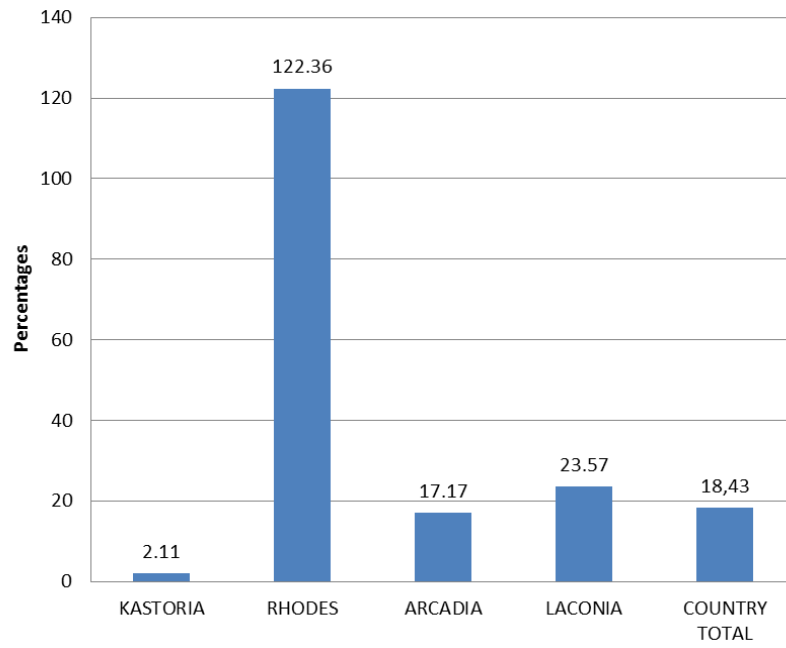


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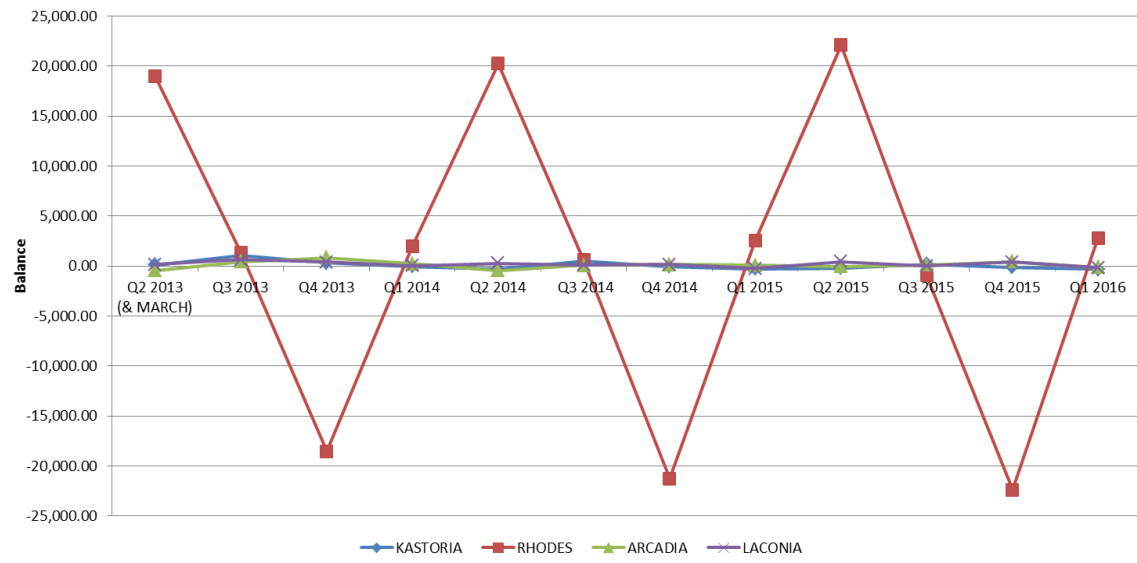


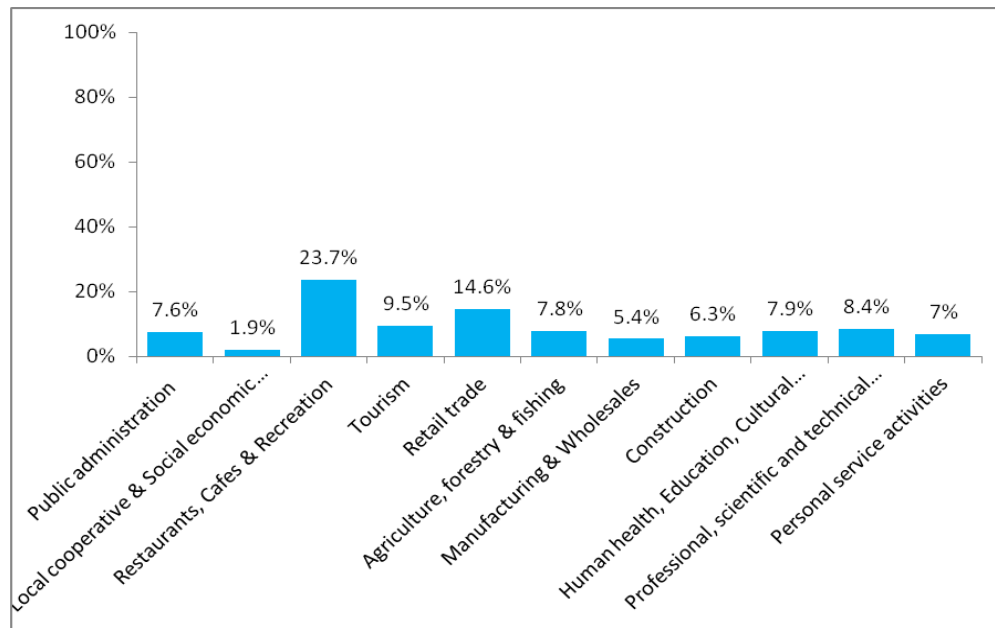
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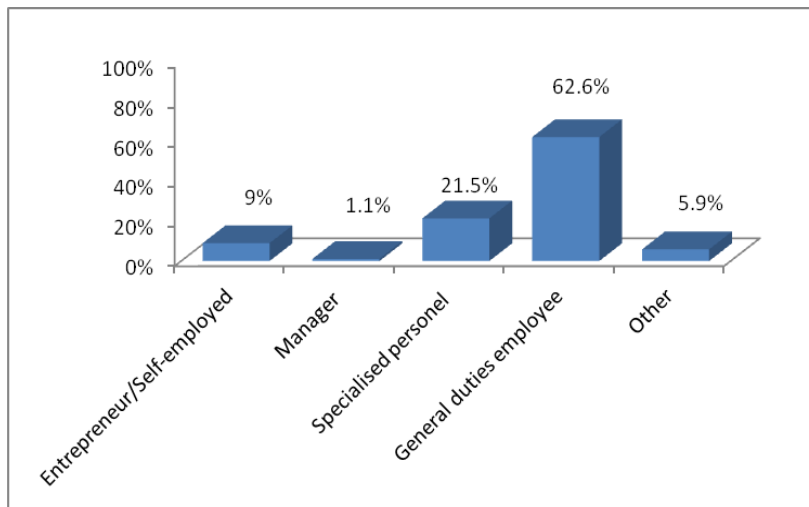
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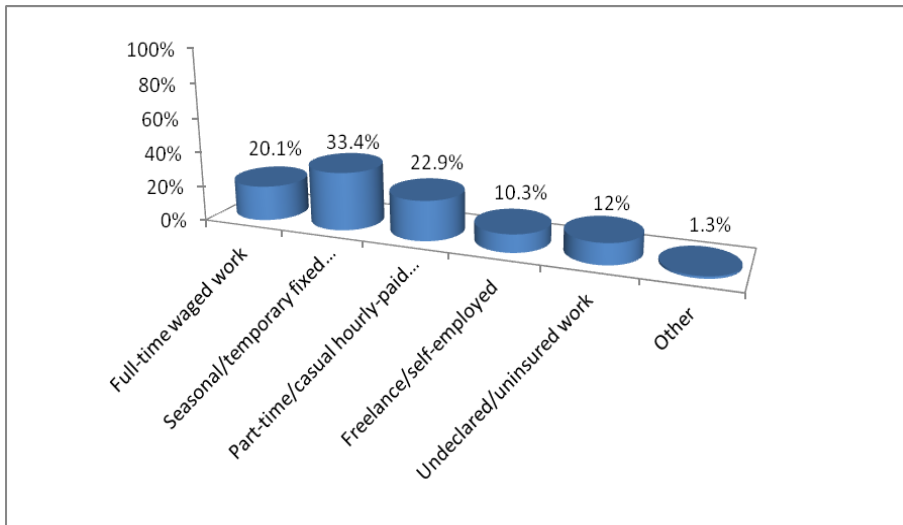
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Figure 13.