Different Ways of Being One's Own Boss:

Patterns of Self-Employment in Croatia.

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Contents

1. Introduction

The term "self-employment" stands for a great variety of different working conditions, especially if considered among different places or times. The recent rise in its importance as both a structural and a policy issue has made understanding substantially different forms of self-employment a crucial issue. It is no less important to establish the differences of being self-employed from an international perspective, both regarding appropriateness of different typologies and whether similar forms of self-employment are structured in the same way in different environments.

Several approaches to account for heterogeneity of self-employment have been developed. Though, in many applications theoretical assumptions of classifications were not thoroughly examined, and to my knowledge, no attempt of developing self-employment classification appropriate to post-socialist transitional country has been made. This is the issue I am about to address.

My goal in this thesis is to develop and test a theoretically grounded classification of self-employment suited to particular history, structure and institutional settings of the Croatian labour market.

To this end, using Croatian Labour Force Survey data, I will test whether such a classification corresponds with the empirical reality, that is, whether different segments of self-employment are distinct in:

a) Trends at aggregated level over time

b) Sectoral and occupational structure

c) Job, personal and household characteristics

d) Level and determinants of remuneration

e) Patterns of recruitment and job tenure

Along the way I will make tentative comparisons, seeing whether patterns are similar to those established by previous self-employment research in transitional and developed countries.

The thesis is structured as following:

- The second section will briefly present origins and developments of self-employment, lay out dominant explanations for the recent rise in self-employment, and argue for heterogeneity of the self-employed.
- The third section briefly portrays developments in the structure of self-employment in transitional countries and Croatia, through pre-socialist, socialist and transitional periods.
- The fourth section presents an overview of theoretical approaches to classification and develops a classificatory scheme.
- The fifth section provides an overview of the data, methodology and operationalised variables.
- The sixth section examines trends of self-employment (in its different strands) and related labour indicators in the past decade.
- The seventh section explores structural and individual correlates of various types of self-employment, as well as remuneration level and the pattern of recruitment to various types of self-employment.
- The eighth section summarizes and proposes further research agenda.

2. Origins and Development of Self-Employment

2.1 Self-Employment before Employment

Self-employment, that is, work where earnings are drawn directly from services and goods provided, might easily be the earliest of work forms where effort was primarily monetarily remunerated. According to Tilly and Tilly (1994), artisan/craftsmen organization of work preceded waged employment and preceded the dominance of the capitalist mode of production[1]. Yet, during pre-industrial times, in most localities self-employment was dwarfed in scope by other forms of work, which were bound by relationships of kin, obligation or coercion rather than the employment relationship. The majority of work was done by households as basic production units that engaged in a wide array of (mostly agricultural) activities (Pahl, 1984), tightly integrated in the local community (extended family, tribe, village or fiefdom).

The advance of capitalist relations brought a decline in traditional social relationships (rights as well as obligations) and traditional forms of work (or exploitation), so a large part of the population had to switch to new means in order to achieve sustenance and prosperity. They had to enter the market. Early capitalist enterprises favoured the use of outworkers and subcontracting (Tilly and Tilly, 1994, Crossick, 1997), so many became self-employed on such terms, albeit dependent on capital. While the share of workers in agriculture started declining shortly, those who retained their land became self-employed as well, contributing significant numbers to the ranks of self-employed.

[1] Craft/artisan production in the pre-capitalistic era should not be easily considered equivalent with the contemporary self-employment. Such work was embedded in a prevalently feudal social structure, a different mode of production, a different mode of regulation and it employed a different production unit. The artisan household was run by the master with patriarchal authority over all its subjects, who could hardly be considered employed in contemporary terms (Crossick, 1997).

In England where this process emerged rather early and intensively, R. Pahl (1984) portrays usual work arrangement of the time as being a mixture of short-term waged labour, provision of goods and services, and small scale agricultural work. Such "portfolio" working, which included various skills of all members of family units, denies easy classification within the occupational structure, yet it seems closer to self-employment than to employment.

On the more respectable part of self-employment range, the "petty bourgeoisie" developed: small proprietors, shop owners and skilled craftsmen, who exercised somewhat greater control over their means of production, and occasionally employed the labour of others. This rather heterogeneous group comprises traditional middle class, an "uneasy stratum" (Bechhofer and Elliott , 1981) squeezed between capitalists and proletariat, but rather stable and tradition-oriented (Müler and Arum, 2004). Their position has changed considerably with the demise of guilds in the early 19th century, followed by integration into the production process dominated by large capital, either by sub-contracting or financing (Crossick, 1997). Marx (1867) heralded their demise in lieu of the superior production forms and leverage of large capital. Yet the utilization of simple commodity production by these groups has proven rather resilient to changes in prevalent modes of production or social organization (Steinmetz and Wright, 1989). Substantial numbers remained, but by the 20th century their role was temporarily relegated to the periphery or dependency (Crossick, 1997).

Although self-employment is far from being a norm for most professions in the past or nowadays, practitioners of some traditional professions, primarily medicine and law, were and still are rather likely to be self-employed (Makkai, 1992). Within class scheme developed by Goldthorpe (e.g. 1980), self-employed professionals form a

distinct elite, whose market and work conditions correspond more to high-end salariat than to petite bourgeoisie.

2.2 The Long Fall of Self-Employment

As capitalism "matured," stable waged employment within large organizations became a dominant form of work. Numerous explanations were proposed for such developments. On the one hand, waged employment was facilitated by organizational developments, like a change in the industrial mode of production, intensification of time-discipline demands from labour (Tilly and Tilly, 1998), or the rise of tightly managed, vertically integrated companies (Chandler, 1977). On the other hand, structural developments like growth of state sector, capital-intensive industry, de-agrarization and increase of firm size all concentrated work in the waged sector.

The advent of occupational statistics in the late 19th century confirmed that employment had become the norm in most industrialized countries, while self-employment was usually estimated at about one third of labour force (Steinmetz and Wright, 1989, Tilly and Tilly, 1998, Fairlie and Meyer, 2000). For the first three quarters of the 20th century, a share of self-employed was in slow but constant decline, apart from an increase during the Great Depression (Eichengreen and Hatton, 1988). It seems that decline during this period was not only due to reduction in size of sectors where self-employment is prevalent, but that share of self-employment was falling in all industrial sectors (Steinmetz and Wright, 1989, Fairlie and Meyer, 2000).

2.3 Recent Developments

In developed capitalist countries, the 1970s marked a low point for self-employment. In most countries, non-agricultural employment accounted for 6-10% of employment, with Sweden being an outlier with about 4%, and Canada, US and UK

near the low mark. However, Mediterranean countries deviated significantly from this pattern with non-agricultural self-employment close to or over 20% (Blanchflower, 2000). Then, in the late 1970s this trend changed; decline stopped and the self-employment level was on the rise, its share increasing at an average 20% from its previous level during the late 1980s to early 1990s, and stabilizing afterwards (Müler and Arum, 2004, Luber and Leicht, 2000). Increase started earlier in the US, and was particularly pronounced in the UK; it jumped from 7% in 1965 to 13% in 1991, staying at a rather high 11.5% in 2000 (Brooksbank, 2000, Hakim, 1998).

The number of self-employed is still considerably smaller than that of employees, and there are countries where the share of self-employment has stagnated or decreased (Luber and Leicht, 2000), and variation between countries is much greater than changes within, but the obvious reversal of long-term historical trends attracted considerable attention from scholars who, until the 1980s tended to neglect the subject of self-employment.

There are numerous approaches to account for the recent rise of self-employment, broadly:

1) Theories of *post-industrial* society and *information society* (e.g. Bell, 1974, Reich, 1992, Castells, 1996) stress the increased role of knowledge and handling of information in the creation of value. Consequently, service sectors gain a more important role. A shift of the employment structure to sectors where self-employment is traditionally prevalent, the opening of new sectors formerly uninhabited by large firms (Steinmetz and Wright, 1989), an increased importance of professional knowledge, and advances in information and communication technology all can be perceived as advantageous to small business and self-employment.

2) The trend towards the business practices of *flexible firm*, that is, a reorganization of industrial relations based on a flexible use of the workforce. Such restructuring leads to downsizing as well as to a return to outsourcing/subcontracting relationship for the organization of non-core business activities (Atkinson, 1984, Hakim 1987). Such a strategy provides both fewer opportunities for non-contingent employment and a greater demand for the provision of goods and services by the self-employed.

3) The *flexible specialization* model (Piore and Sabel, 1984) stresses the importance of small firms in a contemporary volatile and differentiated product market. The ability of craft production to change products and processes more easily in response to market demand makes the small firm sector complementary to mass production in all economic sectors. Small firms can aggregate to form dynamic business networks (e.g. "Third Italy"), but large firms are also able to modify their production and supply level by using small, more flexible firms.

4) The countercyclical "*unemployment push*" model argues that an increase in self-employment is a consequence of declining economic conditions and the rise of unemployment, which is "pushing" workers into self-employment. While at the individual level the unemployed are more likely than the employed to become self-employed (Arum and Müler, 2004), at the macro level the rate of unemployment is by most reports not sufficient to account for all the change in the self-employment level (Steinmetz and Wright, 1989, overviews by Brooksbank, 2000 and Le, 1999, affirmative view in Bögenhold and Staber, 1991, critiqued by Meager, 1992).

5) The *entrepreneurial pull* (or "prosperity pull") model is based on a complementary assumption about the attractiveness of self-employment within favourable economic conditions (Luber and Leicht, 2000). This might be due to a purely

economic advantage, a better return on human capital in self-employment (Taylor, 1996), or because of the non-monetary advantages of independence that it provides (Bögenhold and Staber, 1991, Hakim, 1998). Changes in economic structure as well as a rise of enterprise culture (the "Thatcher effect"), (Brooksbank, 2000) could have resulted in increased power of the entrepreneurial pull.

6) Finally, it must be stressed that "the economic environment and the institutional and legislative framework define the opportunity structures that facilitate or restrict the establishment of one's own business" (Luber et al, 2000:6).

From the *structural* side, opportunities and limitations on various forms of self-employment are affected by the overall employment structure, growth and development level, demographic characteristics of the population, educational structure, family patterns, level of social capital, and the existence of an informal sector.

On the other side, *institutional* settings affect self-employment in two ways. Direct effect takes the form of small business legislation, licensing and crafts regulation, or initiatives for start-up business. Indirectly, labour regulation and small business legislation, social security regulation or tax level and tax exemptions all affect the environment for small business (e.g. Staber and Bögenhold, 1993, Blanchflower, 2000, Williams, 1999, Arum et al, 2000, Aronson, 1987).

2.4 A Problematic Connection: Self-Employment, Entrepreneurship and Small Business.

Since the 1980s there has been a shift in the policy and rhetoric of many governments regarding self-employment (OECD, 2000), mainly due to the belief that "self-employment and small business in general, are seen by many policy makers as an opportunity and vehicle to promote industrial dynamism and job creation, particularly at a time when good employment opportunities are scarce" (Staber and Bögenhold,

1993:126). A sector once relegated as marginal became favoured as flexible and dynamic. Blanchflower (2000) notes that while many assumptions about job creation and the growth potential of the small business sector have since been challenged, most governments still maintain policies to support small businesses and self employment (OECD, 2000).

Central to the popular enthusiastic view of self-employment is the entrepreneurial character, a risk-taking person willing to innovate and capable of managing effectively. He is a prime economic mover who fuels growth through Schumpeterian creative destruction. Unfortunately, there is little evidence that a majority or even a significant part of the self-employed subscribe to such a worldview or follow such business development patterns (Curran, 1990, Hakim, 1998, MacDonald, 1996). Although only a minority of unemployed have become self-employed, only some self-employed are small business owners and only some small business owners are innovative and prone to risk-taking, self-employment was readily seen as a labour market panacea. A story of the unemployed becoming self-employed entrepreneurs who skilfully enter dynamic sectors and produce growth and jobs, readily assumes "virtuous homogeneity" among the self-employed while there might not be much of it among the self-employed.

2.5 The Issue of Heterogeneity

Is it justified to consider the self-employed, a statistical residual category comprising all remunerated forms of work apart from waged employment (Luber and Leicht, 2000, ILO, 1993), as a homogenous group? Or can various forms of self-employment be understood as distinct social groups, concentrated in different industrial/occupational areas and enjoying different working conditions?

The historical development of self-employment demonstrates a genesis of different groups: agricultural, survivalist, professional, or self-employment of the petite bourgeoisie. Some of these forms do not fit the small business sector and none of them carry particular resemblance to entrepreneurs.

Could the recent growth of self employment account for further heterogenization of this stratum? All of the models presented here carry some implications that emerging self-employment is not the same as the "old" self-employment:

1) Theories of the post-industrial/informational society stress the growing role of educated professionals and the inroad of self-employed and small business in new occupations and new sectors.

2) The flexible firm doctrine implies widespread rise of self-employment in sectors servicing big firms, an increase of quasi-self-employment and lower demand for waged labour.

3) The flexible specialization model favours small firms and skilled work over all sectors of economy, especially dynamic ones.

4) The "unemployment push" to self-employment should foster a rise of survivalist self-employment crowded in low skill, low-profit sectors.

5) The pull models favour workers with higher levels of skill or higher motivation for independence, primarily within sectors with low capital requirements.

6) Environmental and institutional parameters can and do skew the structure of self-employment in various directions, and determine the extent to which each of five global models mentioned above will influence local self-employment.

These models are not exclusive, and most authors quoted agree that more than one is in effect. If this is the case, it is likely that divergent trends affecting an already heterogeneous population of self-employed will not result in a homogenous group with

distinct homogenous characteristics. Instead of historical oblivion, or unlimited quantitative expansion, we might be facing a qualitative differentiation of self-employment forms.

Consequently, an analytical tool is needed to account for the multiplicity of self-employment. For that purpose, I will resort to an existing classificatory toolbox. But since this paper is exploring self-employment, in particular in the transitional country of Croatia, the historical, structural and institutional circumstances of self employment in a (post)socialist world should be described first.

3. Self Employment in Socialist and Transitional Countries

3.1 Pre-transitional Developments

Regions that eventually became European socialist countries were all (apart from Russia) at the time of capitalist transformations peripheral areas of the Hapsburg monarchy, Prussia, or Turkey and in good part shared an institutional structure with these countries. Their peripheral position was reflected in a generally lower level of development and delayed modernization. Consequently, waged employment and large firms were slower to develop. For example, in Hungary by the end of the 19th century, 44% of production workers were independent masters/craftsmen, a further 44% worked for them, while only 12% were industrial workers (Bácskai, 1997), and well into 1930s, an agricultural sector still prevailed (Róbert and Bukodi, 2000).

Nationalisation, which followed the establishment of socialist regimes, swept most of the private sector. Not only were capital and means of production seized (a process well underway in wartime economies), but regulation of property rights, the banking sector and labour law kept the private sector in check (Loutfi, 1991). Yet, in

most socialist countries self-employment was tolerated to a certain extent, forming a so-called "second economy": small-scale, labour intensive enterprises with limited access to capital and raw material (Róna-Tas, 1994). Such enterprises mostly served local markets with consumer goods and services which a planned economy failed to produce, thus were concentrated in agriculture, construction, repair and personal services (Róbert and Bukodi, 2004, Hanley, 2000).

The degree of regulation varied among the countries, and was reflected in the prevalence of self-employment. In the USSR self-employment was outlawed and functioned informally and sporadically (Gerber, 2004). ILO estimates of self-employment in Bulgaria and Czechoslovakia, where private business was not endorsed by state (Hanley, 2000), were less than 1% (Loutfi, 1991). Hungary had a constant rate of about 3% through the whole period (Róbert and Bukodi, 2004). In Poland, where private enterprises "were tolerated to the extent they provided goods and services to the state sector" (Wilson and Arvil, 1994: 23), in 1980 non-agricultural self-employment was about 3%, but agricultural self-employment was not collectivized, and accounted for 10% of the employed population and as many unpaid family workers (Loutfi, 1991).

Increase in secondary self-employment was the first manifestation of rise in self-employment within socialist countries. During the "erosion" phase of socialist regimes it was not uncommon for these regimes to relax regulation of private enterprises (Róna-Tas, 1994), enabling workers to engage in side-jobs in addition to their main job. Often, fixed capital from state enterprise was used (Loutfi, 1991), as was the case with the business-work partnership in Hungary (Róbert and Bukodi, 2004).

Socialist Yugoslavia entered the second half of the 20th century with almost three quarters of its economically active population engaged in agriculture. Since the collectivization of agriculture was not pursued, all the farmers were effectively self-

employed workers. Agricultural self-employment was tolerated, but discouraged by imposed prices, undersupply and limits on land possession, which led to a rapid outflow of workers in the state sector and urban areas. By 1980, agricultural self-employment dropped to 20%, yet other types of private enterprises accounted for about 14% of the total employment. About two million employers and workers[2] in private sector comprised one third of employment in the transport/communications sector, and one quarter in catering and tourism, construction and artisan work (Lydall, 1984). A rather extensive trades and craft sector operated and was taxed, pension schemes for the private sector existed, and employers were free to employ up to five workers. On the downside, in agriculture, industry and services alike, the private effort was ideologically and fiscally harassed[3], having limited access to supply and markets and few possibilities for legitimate integration into the economic core (Brus and Laski, 1989). Evasion of regulations was widespread, and borderline informal economic activities were tolerated in sectors neglected by the state (Crnković-Pozaić, 1997). Specificities of Yugoslavian socialism, like "social ownership", various practices of labour self-management, firm autonomy and lack of planning were actually very conducive to moonlighting, which by the mid 1970-s provided an estimated additional 30% in formal income (Lydall, 1984). Unlike Hungarian business-work partnerships, this kind of activity was informal and illicit.

These observations on self-employment apply to all Yugoslav republics, all having the same institutional and ideological environment. Croatia, at the time the second most developed republic, had a somewhat more tertialized employment structure, but its particular federal system discouraged the emergence of specialized

[2] Lyndall mentions average of 0.4 employees per employer in Yugoslavian private sector.
[3] There were generally fewer administrative problems in the hotels/restaurants sector, where thousands of gastarbaiters who returned work emigration in Germany invested their savings (Brus and Laski, 1989).

industrial areas and tended to produce a balanced (but on a federal level redundant) industrial structure in each republic (Sekulic, 1987).

3.2 Transitional Developments

The first few years of transition from socialism brought dramatic economic restructuring, characterized by a fall of income, an increase in unemployment, reduction of activity rate, dissolution of numerous enterprises and an overhaul of the legal system. Private enterprises were legalized all over the region, but administrative barriers, availability of financial credit and state support varied from very restrictive in Russia to rather supportive in Hungary (Cazes and Nesporova, 2003, Róbert and Bukodi, 2004, Groeber, 2004).

An overview of Cazes and Nesporova (2003, contributions of other authors supplemented) presents the following pathways of entry to self-employment and small business:

1) In some countries like Poland and Czechoslovakia, small retail, catering and service units were auctioned by public auctions (Hanley, 2000:388). The majority of transition countries engineered such "small privatization" rather quickly, contributing to the formation of a class of small business owners.
2) Nationalized property was returned or compensated, enfranchising heirs of the pre-socialist petty bourgeoisie (Hansley, 2000) and enabling them to try to continue their "interrupted enbourgeoisiement."
3) Attractive spin-offs of large companies formed new limited liability companies, often acquired by managerial buyout (Róbert and Bukodi, 2004, Róna-Tas, 1994).

4) Old unincorporated businesses were granted new rights (Róna-Tas, 1994), while part of former informal sector companies became formalized as their activities became legal.
5) Rapidly rising unemployment, a failing standard and low labour demand accounted for the "push" of many into self-employment, especially those with few qualifications (Róbert and Bukodi, 2004). Both Hungary and Poland started self-employment credit lines targeted at the unemployed as soon as 1990, with dubious results (Wilson and Arvil, 1994).
6) Some countries, particularly Romania, experienced an increase in subsistence agricultural employment.
7) In the face of high contributions and hiring costs, there was a rise in outsourcing of work through the use of "civil contracts" or the informal use of quasi-self-employed workers.

Not all of these patterns led to marginal, survivalist self-employment. Many self-employed ended up better off (Hanley, 2000). Yet, the low level of savings, (un)availability of credits, and expansion of the service sector directed a majority of the new enterprises into labour-intensive sectors like personal services, hotel/catering, retail, handicrafts, transport, production and professions. Self-employment quickly increased in the first few years of transition, followed by increased outflow from self-employment since the mid-1990s (Róbert and Bukodi, 2004 for Hungary) and stabilization or decline of total self-employment. The current level mostly corresponds to the "northern" European pattern (Cazes and Nesporova, 2003). It seems that the scope of non-agricultural self-employment is not related to the strength of the pre-transitional "second economy" (Hanley, 2000).

Croatia experienced a transitional shock similar to other ex-socialist countries, amplified by war developments, international isolation and the loss of a federal market. A large share of former employees in the state sector turned to self-employment. Crnković-Pozaić (1997a) estimated that those who were self-employed comprised between one third and one half of the private sector employment growth between 1990 and 1995, yet the share of agricultural workers in total employment halved[4]. The informal economy strengthened as well, with about one quarter of the working population participating in 1995 (Crnković-Pozaić, 1997). In later years, as war ended, the economy recovered and regulations tightened, the grey economy substantially decreased in size, as did inflow to self-employment. As in other transitional countries, there was a proliferation of contracted work outside employment relationship, although labour-only contracting and non-independent work were legally not allowed (Zuber, 2003).

Apart from providing "unemployment push," privatization is unlikely to have had a major effect on the burgeoning of the small business sector. Privatization lagged and effectively started only in 1991. An authoritarian HDZ government retained a high level of control over the economy through large state-run privatization and pension funds. In theory, privatization favoured workers/employees, yet the most common form of privatisation was a buyout of whole enterprises by managers and eventually nationalist political allies (Barrett, 2004). Thus, for most of the 1990s, control of large business sector was either retained by the state, or was transferred to a small number of "tycoons".

[4] The agriculture used to be a major activity in the war-affected areas of Croatia. In the 1990s, emigration of refugees from these areas, one million landmines that were planted and the fact that parts of territory was outside government control probably contributed more to the decline of agricultural employment than the modernization effect.

Despite widespread affirmative rhetoric regarding entrepreneurship or small and medium sized businesses[5], there was little policy support for small business or self-employment sector development. Through the entire first decade of transition, substantial state subventions (about 2% of GDP) were primarily targeted at the big business/industrial sector, which was favoured by the tax regime as well. The Croatian Bank for Reconstruction and Development, the Ministry of Trades and SME-s and the Croatian Guarantee Agency issued low-interest loans and guarantees, yet all but the last institution obviously favoured the medium sized sector. In 2000/2001 such support summed up to 200 million Euros spread in less than 3000 arrangements (Kesner-Škreb and Mikić, 2003). During the 1990s, access to capital was restricted and interest rates unfavourable, leaving mostly bigger, politically connected players on the field (Barrett, 2004). Despite non-demanding financial requirements for starting-up businesses, administrative procedures were long and arduous for any kind of enterprise. In national employment policy, established in 1998, crediting of self-employment is a programmatic priority, yet when initiated two years later, the program self-employed only 434 unemployed persons (Babić, 2003); about one thousandth of the unemployment pool.

[5] The concept of self-employment itself is rarely if ever mentioned.

4. Classification Building:

4.1. Definitions

According to Williams (1999), there are four approaches used in defining the whole of self-employment. First, an *objective* legalistic criterion can be established, commonly based on a contract of employment. Such a definition is highly dependent on legal tradition and the institutional structure of particular states. Second, an *economic* criterion of economic independence might be used, regardless of contract type – yet, the state of independence might be hard to discern. Third, a *subjective* approach accepts an individual's view on her status in employment. Analytically, this approach does not reveal what self-employment stands for. The final approach is a pragmatic *negative* one, defining self-employed as "those who are engaged in economic activities otherwise than for an employer" (Williams, 1999:25) which is least informative, but also least ambiguous.

The prevailing definition of self-employment, endorsed by the International Conferences of Labour Statisticians, and integrated into the International Classification of Status in Employment (ISCE-1993), navigates this issue as follows:

> "Self-employment jobs are those jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is considered to be part of profits). The incumbents make the operational decisions affecting the enterprise, or delegate such decisions while retaining responsibility for the welfare of the enterprise. (In this context "enterprise" includes one-person operations.)" (ILO, 1993)

This definition primarily uses an economic criterion for self-employment, but implies a negative definition as well, since categories "are defined with reference to the distinction between paid employment jobs on the one side and self-employment jobs on the other." (ILO, 1993)

4.2 Boundaries within Self-employment

There are numerous approaches to classifying self-employment. The most commonly used criterion is buying of other's labour (employer) as opposed to neither buying nor selling (self-employed), or selling it (employee) (e.g. Goldthorpe, 1980). Such an approach was implemented within the widely accepted Erickson-Goldthorpe-Portocarero (EGP) class scheme[6] (Erikson et al, 1979). Alternatively, Arum and Müler (2004) classify self-employment by occupational status; Portes et al. (1986) use the formal/legal status of enterprise as a criterion, while MacDonald (1996) post hoc classifies self-employed according to their success. McManus (2000) uses a sophisticated statistical technique to discern self-employment according to one's level of income and job stability in comparison to waged employment.

One of the primary characteristics of the self-employed, as stressed by the self-employed (Hakim, 1998, Harrison, 2004, Curran, 1990, Péter and Bukodi, 2000) and research concepts alike (Makkai, 1992, Fraser and Gold, 2001, Taylor, 1996), is autonomy, independence, and freedom to "be one's own boss." The presence or absence of autonomy is considered a crucial division among the self-employed, differentiating

[6] The non-professional self-employment and small business owner-managers comprise a small proprietor group, divided in three distinct occupational sub-groups: IVa (small proprietors/employers), IVb (small proprietors/non-employers) and IVc (farm workers).

between independent work and exploitive camouflaged employment[7] (Portes et al, 1989, Bögenhold and Staber, 1991, OECD, 2000, Smeaton, 2003).

The classification of self-employed which I am about to propose will follow the autonomy line, and primarily rely on E. O. Wright's (1978) analysis of class structure in terms of control. Using a neo-Marxist structuralist approach, Wright allows for a multitude of class positions based on the level of *control* that a person exercises in three basic areas of the capital-labour relationship:

- Control over investments and resource allocation. Economic ownership is reflected in control over what is produced.
- Control over physical means of production. This encompasses the production process and tools of production; control over how the production is organized.
- Control over the labour power of others.

While class positions of capitalist and proletariat are characterised by a presence or absence of all three categories, Wright allows for the existence of "contradictory" class positions, with control over some, but not other aspects of labour. I will concentrate on positions that might be representative of the self-employed:

Wright draws an additional class position based on mode of production, which has proven persistent in contemporary capitalism. Those are the petite bourgeoisie, engaged in traditional simple commodity production, where producers own their means of production and sell the product of their labour instead of their labour on the market (Steinmetz and Wright, 1989). This segment corresponds to the category of self-employed in typology of Scase and Goffee (1982). Although originally it was meant to represent the traditional petty bourgeoisie, there is no analytical reason not to extend it

[7] The autonomy is never absolute and, as portrayed in section 1.3, most of self-employment is well integrated into capitalist relationship of production (Curran, 1990, Portes et al, 1989, Steinmetz and Wright, 1989).

to new knowledge-intensive, professional or highly dynamic forms of self-employment as far as they satisfy the given criteria.

Between the petite bourgeoisie and capitalists, there is a segment of small employers, positioned between the simple commodity and capitalist modes of production. They exercise control over all aspects of labour process, but the number of workers controlled is small and control over the work of others is immediate.

Lastly, between the petite bourgeoisie and proletariat, there is a segment of semi-autonomous workers, who have some level of control over investments and means of production, but whose labour activity is dominated by capital. Wright positions some skilled craftsmen and professionals within this category. Yet, he leaves open the possibility of other contradictory class positions, where the semi-autonomous position is not contained within the employment relationship. The existence of such a stratum is proposed by Staber and Bögenhold (1991:225), among the self-employed "who have no autonomy in the labour process and may not even own their means of production," like some freelancers and homeworkers. To contrast Wright, I will call this position semi-independent self-employment.

Table 1: Contradictory and unambiguous locations within class relations
(shaded positions represent locations within self-employment)

	Control over investment resources	Control over physical means of production	Control over labour power of others	Legal ownership	Legal status of being the employer	Sale of own labour power
Proletariat	-	-	-	-	-	+
Semi-autonomous workers	minimal	minimal	-	-	-	+
Semi-independent self-employed	minimal to nil	partial to nil	-	-	-	- (masked)
Petit Bourgeoisie	+	+	-	+	-	-
Small Employers	+	+	minimal	+	+	-
Capitalists	+	+	+	+	+	-

Source: Wright, 1978. Semi-independent self-employment category added.

While separation criteria between small employers and petit bourgeoisie (control over labour) is not difficult to discern, differentiating petit bourgeoisie and the semi-autonomous self-employed might be more problematic. In solo businesses, the level of control over resource allocation and means of production is seldom absolute due to capital, labour and market limitations, but the situation where the self-employed individual is providing to a single client or when clients are few or large is generally connected with a lower level of control (Fraser and Gold, 2001, Granger et al, 1995).

The legal ownership of an enterprise, although of secondary importance in Wright's scheme, might be a good proxy to determine the semi-independent position among the self-employed. A registered business, regardless of whether it is incorporated or unincorporated, is operating publicly, with regulated property rights, taxing and insurance issues, and formal access to capital/credits, all reflecting a higher level of control over investments and the means of production. On the other hand, the self-employed who own no business are in a substantially different position. They have limited immediate access to market/customers, few if any means of production, they do not participate in the social security system (most likely not by choice), and lack formal access to credit/capital – all related to a lower level of control and independence[8].

4.3 Operationalization of Categorization

In order to suit a Croatian institutional and structural context on one hand, and to fit constraints imposed by the Labour Force Survey data used on the other, the categorization proposed in previous section has to be "localized". I will distinguish four distinct categories of self-employment in Croatia:

[8] Using formality as a proxy might not apply when majority of small business sector is informal, as it is in many developing countries (Portes et al, 1989). Informality itself is not sufficient indicator, since many registered businesses function to a certain extent informally, and many non-registered businesses have legal form under which they function.

Small employers are persons formally employing the labour of others. Solely resorting to informal work or unpaid family members does not qualify one as small employer. As well, the inclusion of owner-controllers or owner-directors would introduce elements of "pure" capitalist class into this segment (and more pragmatically, outliers into sample[9]). I will truncate the upper boundary of this category at 25 employees, what is within boundaries suggested by Wright (1978) and fits the administrative limit of "small employer" as defined by Croatian laws.

Self-employed business owners are the petty bourgeoisie, self-employed who have a registered enterprise (incorporated), craft or free profession (unincorporated), but do not employ others. Under Croatian law, all those forms have an advantage over independent activity carried on outside of a registered business. Registering a craft or enterprise is not complex in itself, but registering and starting up a particular activity is usually administratively demanding. Those who succeed, and are practicing any kind of business in a formal fashion, enjoy a relatively privileged position.

Self employed without a registered business are the semi-independent self-employed. This segment includes all who work by means of authorial or civil contract, or are paid in cash, in kind or upon informal agreement. Informal sector workers comprise a sizeable part of this segment, but it is the criterion of contractual dependence and lack of control that distinguishes it from registered business.

Solo self employed in the agricultural sector will be considered as a separate category because they inhabit a marginal segment of economy and use a partially self-sufficient, traditional mode of production connected with land tenure (Loutfi, 1991), where both the means of production and investments are largely given rather than controlled.

[9] It would be informative to include self-employed capitalists as additional type, yet nationally representative survey as LFS is not appropriate method to gather enough such cases for statistical analysis.

Unpaid family workers will not be included within self-employment typology, although the ILO classifies them so. Their labour is dependent, integrated in a household production unit and remunerated indirectly. While being commonly used by self-employed and small employers (e.g. Arum and Müler, 2004, Scase and Goffee, 1982, Braines and Wheelock, 1998), all aspects of such labour are basically controlled by the head of the household.

5. Methodology

5.1 Data

The proposed line of analysis demands a dataset representative of the whole working population, which at the same time contains a substantial number of self-employed to warrant reliable statistical analysis. The Labour Force Survey (Anketa o radnoj snazi) satisfies this requirement. It is the only large-scale, nationally representative survey of the labour market in Croatia. Introduced in 1996 and collected monthly since 1998 (with semi-annual reports), Croatian LFS (CLFS) gathers data about education, basic socio-demographic characteristics, working status, job characteristics, job search and rudimentary work history (previous job only) in the form of a household survey. Semi-annual datasets consist of up to 7500 households and 20000 respondents.

I have selected three CLFS datasets surveying periods three years apart: 1997, the first half of 2000, and the first half of 2003 (most recent available).

Table 2: Effective sample size (number of respondents in employment)

Dataset	1997	1/2000	1/2003
N in employment:	10292	5179	7380

Use of the CLFS has three major advantages. First, its large sample size makes possible individual-level statistical analysis of less prevalent employment phenomena such as self-employment (and its various strands). Second, CLFS follows ILO/Eurostat guidelines on basic concepts and methods, making LFS data (and therefore analyses), comparable among the countries. Third, being a household survey, CLFS allows controlling for characteristics of the household, or other household members, thus positioning the respondent in her immediate social context.

General limitations of the LFS are twofold. First, its content is limited and lacks subjective indicators (like job satisfaction and autonomy), detailed work history or family background data[10]. Second, it is a cross-sectional study, which allows for the exploration of the structure of self-employment, but not its genesis or transitions[11].

There are some limitations particular to the Croatian LFS. First, it was introduced quite recently, and consequently does not cover the sociologically interesting early transitional period. Consequently, there are not enough time points for a complementary time series analysis. Third, classifications and questions used are prone to change. Lastly, the method of sampling and collection changed over time. Until 1998, it was a one month annual survey, and then it switched to monthly waves. The initial sampling frame was based on an update of the pre-war census, modified after reintegration of Eastern Slavonia in 2000 (which until that time was out of survey reach). There was another sampling update in 2002 based on the 2001 census. While

[10] This limitation applies to any secondary data analysis. Usually, a limited set of indicators is a trade-off for having access to the data without using up time and resources for collecting it.

[11] Detailed work history or a longitudinal research design would make this possible, either by use of Cox regression hazard model (see Taylor, 1999) or coding of person-year units of observation and application of time-event analysis (e.g. international self-employment project of Arum and Müler, 2004). Since 1998, CLFS is conducted in waves, same respondent being interviewed for four times over two years. This could make possible short-term longitudinal observations and application of given models, yet such dataset is not publicly available yet.

those developments mark improvement in data reliability, observations from various time points are not fully comparable.

5.2 Statistical Procedures

The categorical nature of both the self-employment classification and most of the indicators used dictates use of nonparametric measures of association for bivariate analysis and multinomial logistic regression for multivariate analysis.

Association between self-employment status and sectoral or occupational position, working condition, previous employment status, marital status, and level of education will be tested by Chi-Square tests, supplemented by Cramer's V, Goodman-Kruskal lambda, and the entropy coefficient.

Patterns in which different forms of self-employment are structured will be tested by multinomial logistic regression. For this purpose, the sample is limited to respondents in remunerated employment only (employees plus all self-employed). Employment type is used as a response variable, employee status being the baseline category. In order to discern patterns in which different indicators affect the odds of being in a particular strand of self-employment rather than being an employee, three models will be built. The first model will explore differences in job characteristics; the second will consider work-related characteristics of the individual, while the third will examine association with household characteristics. These models explore whether certain traits are associated with certain self-employment forms, and generally make no claims to causality.

Patterns of entry to self-employment will be tested in a similar manner by multinomial logistic regression, using previous employment status, work experience prior to employment, and spell of employment as predictors.

In order to test the difference in income attributable to self-employment status, a linear regression on natural logarithm of wage will be applied, with employment type as predictor, and controls in the form of structural position, individual and family indicators.

5.3 Indicators

Sector: In the LFS, economic activity of each respondent is classified according to seventeen basic categories of International Standard Industrial Classification (ISIC rev.3). In Croatia, four of those categories employ less than 1% of the population, while some others cover the state sector only. This makes it unsuitable for intended statistical procedures due to numerous empty or low-count cells within crosstabulations. To avoid arbitrary selection/redesign of categories (and aggregation of the rest within the opaque "other" category), for analytical purposes I will use Singelmann's (1978) industry classification scheme, which groups activities according to their structural position in production and consumption process. Six basic sectors will be considered: extractive, transformative, distributive, business services, social services and personal services (for classification scheme see *Appendix 1*, for elaboration Castells, 1996, Singelmann, 1978, for examples: Steinmetz and Wright, 1989, Wright and Singelmann, 1982, Aoyama and Castells, 2002.)

Occupational status, based on nine major groups of ISCO-88 classification, will be used as a predictor in bivariate analysis only. Occupational status is commonly used as an indicator of social stratification, based on prestige and characteristics of particular occupations (see Jones and McMillan, 2001 for overview). Though, most categories of ISCO-88 occupational classification are defined according to educational requirements (Elias, 1997), and some (like agricultural workers) are limited to certain sectors only.

This produces a high level of association among the predictors[12] that would produce ambiguous results if used in multivariate analyses.

Educational level will be operationalized using the CASMIN scheme adapted using guidelines offered by Hildegard and Steinmann (1997). The Croatian educational system in the last five decades resembled the Hungarian one: eight years of compulsory education (1c/2ab), followed by a three year vocational school (2c_voc) or four year technical or grammar school (2c_gen)[13]. A later group has an opportunity to continue with a 4-6 year university (3b) or 2 year vocational college (3a) course.

Job characteristics: This group of indicators includes the number of hours worked weekly (categorized due to multimodal distribution), the presence of uncommon time regimes of work (evenings, nights, Saturdays, Sundays) and health/pension benefits covered by job.

Other personal characteristics: Gender is usually strongly related with entrepreneurial involvement. Age and age squared will be used as the proxy for work experience and position in lifecycle[14]. The square term is included due to the likely curvilinear effect of age.

[12] Preliminary data analysis confirms this statement. For first half of 2003, association coefficients of occupation paired with sector and educational level were 0.50 and 0.52 (Cramer's V), or 0.35 and 0.31 (symmetrical Lambda) respectively.

[13] From 1980 to 1991 an educational system of "specialized secondary education" was introduced, abolishing vocational/grammar school division. Within this system, all students received rather broad scope of general education and specific vocational training. After this experiment ended, substantial amount of general education in technical (but not vocational) schools remained. Tertiary education was (and still is) readily achievable upon exit from any 4-year course, so I will classify them all within 2c_gen group.

[14] Alternatively, experience can be measured by number of years in employment. In this case, such approach would be less reliable due to recall problems and discounting of work experience earned in informal work and during the job-search. Ultimately, it would still be a measure of age in disguise. Le (1999) reports similar coefficients whichever parameter is used.

Household characteristics: This group of indicators includes home ownership, marital status, household size, and three dummy variables indicating presence of other employed, self-employed, or helping family members in the household[15].

Income: Reports on this basic economic indicator tend to be unreliable among the self-employed. Estimates range from 1.5% (Taylor, 1996) to 75% (Jones and McMillan, 2001), but commonly stand at 30% (Form, 1982, Róna-Tas, 1994 for early transition). Taylor (1996) suggests that underreporting is consistent among the self-employed population, leaving income distribution unaffected. Still, this leaves a downward income bias in comparison with employees. In CLFS 2003, 2.2% of non-agricultural, and 20.6% of agricultural self-employed reported they don't receive any salary[16]. Whether this marks a non-pecuniary means of remuneration, extreme underreporting, or negative trading balance (living off capital), those cases are considered missing for income analysis[17]. The standard procedure of calculating the logarithm of reported income is used in order to normalize the distribution.

Work history indicators include employment status prior to the current spell of employment, work experience prior to the current spell of employment (calculated as work experience minus current job tenure), and current job tenure.

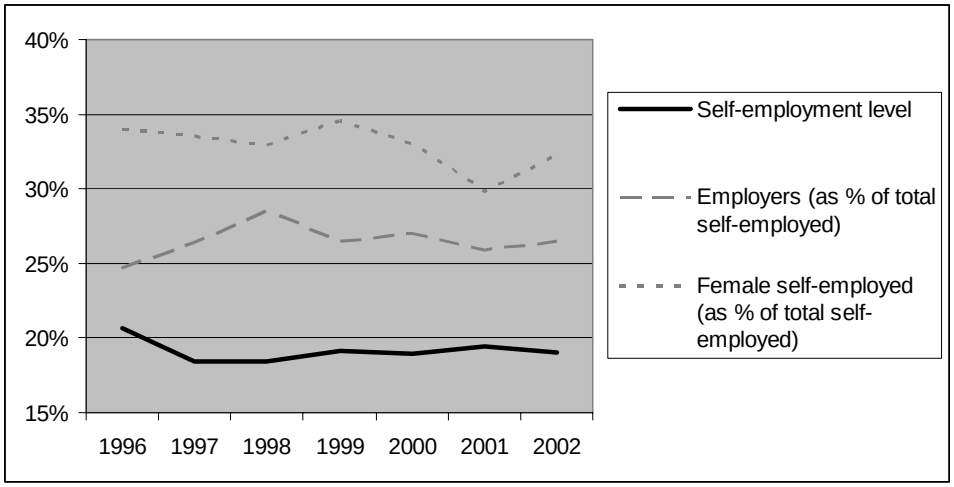
[15] Last three indicators, presence of other persons in certain employment type within the household, were calculated by aggregating the observation count of particular employment type within each household, merging this household level variable back to each family member, reducing its value by one if the respondent herself was in given type of employment, and finally dichotomizing.
[16] Blanchflower (2000) reports the same phenomena, averaging 7.6% and 19.6% in OECD countries.
[17] According to the definition of self-employment used in this thesis, none of listed conditions disqualifies these respondents from being included in other analyses.

6. Dynamics of Self-employment

In this section, I will present developments in the structure of self-employment since the mid-1990s[18].

Aggregated trends based on CLFS data, as reported by the ILO (*figure 1*) show a sharp decline in the general self-employment level in 1997, followed by slow growth since. Early decline was concentrated in the solo-self employment sector, so the share of employers among the self-employed rose in the mid 1990s and has been rather stagnant since. While women comprised about 46% of waged employees through the given period, their share in self-employment seems to be slowly declining (from 34 to 32%) yet is still rather high by European standards.

Figure 1: Rate of self-employment and share of employers and females among the self-employed, 1996-2002.



Source: ILO Laborsta database. Data for Croatia is based on annual averages of CLFS reports.

Using the individual level CLFS datasets, a more detailed picture of trends in prevalence of self-employment can be established, albeit only for three time points available. Data is weighted with individual weights in order to achieve results more representative of Croatian population.

[18] Frequent changes of survey timing, sampling frames and weighting criteria (see 5.1), which distorted error terms in unknown directions, call for caution in comparisons between years.

Table 3: Economically active population, by activity type, 1997-2003 (%).

	1997	1/2000	1/2003
Self-employed	**16.7**	**16.3**	**17.4**
Small employers	4.4	4.5	4.3
Self-employed business owners	2.7	2.7	2.6
Self employed without a registered business	1.9	2.0	1.8
Solo self employed in the agricultural sector	7.6	7.1	8.7
Employees	**66.7**	**64.0**	**64.9**
Unpaid family workers	**6.7**	**4.3**	**3.5**
Unemployed	**9.9**	**15.5**	**14.1**
Overall activity rate 15+	54.7	50.7	50.2

The activity rate decreased sharply in the first half of this period (continuing an early transitional trend), while the ILO-defined unemployment level rose steadily until late 2001 (reaching 16.3%) and moderately declined afterwards. As well, the share of unpaid family workers almost halved in the six observed years.

Such large changes in the labour market were not reflected in prevalence of self-employment which remained surprisingly stable in all its forms, apart from variation in agricultural self-employment. The increase of solo self-employment in the agricultural sector might be interpreted as a retreat to subsistence farming (Cazes and Nesporova, 2003), a "market shift" of unpaid family workers (who are concentrated in the agricultural sector), or an artefact of the 2002 change in sampling frame. Unfortunately, the possibility of testing those hypotheses with available data is limited (*see 7.8*).

The breakdown of self-employment categories (*Tables 3 and 4*) reveals a high (and non-declining) presence of agricultural self-employment. Non-agricultural self-employment accounts for about 10% of total employment, a moderate level typical of non-Mediterranean Europe (e.g. Müler, Arum, 2004, Luber and Leicht, 2000 Blanchflower, 2000). Small employers are as numerous as all own account workers taken together, while self-employed with a registered business consistently outnumber those without one.

Table 4: Share of self employment categories in total self-employment, 1997-2003 (%)

	1997	1/2000	1/2003
Small employers	26.4	27.4	24.5
Self-employed business owners	16.5	16.7	15.1
Self employed without a registered business	11.4	12.5	10.5
Solo self employed in the agricultural sector	45.7	43.4	49.9
Self-employment as share of all employment	18.4	19.3	20.4

Each category of self-employment has a significant presence in the labour force and the past six years has not seen signs of decline in any of these segments. Yet, before embarking on an analysis of the distinctions between different types of self-employment, we should check for the scope of secondary self-employment.

Being self-employed in a "second economy" as a side-job was a widespread occurrence in late socialist times (Róna-Tas, 1994, Róbert and Bukodi, 2000, 2004). Cazes and Nesporova (2003) argue that this multiple job holding as a survival strategy thrived in the 1990s. Crnkovic-Pozaic (1997a) made a similar argument for Croatia in the early 1990s. Such a situation would render the status in primary self-employment (and classification based upon the level of control in a *single* job) inadequate to represent the scope of self-employment. In that case, theoretical models of "portfolio" and mixed employment should be developed.

Fortunately, the share of employed persons reporting additional self-employment is consistently below 2% and dropping in the formal sector[19] (*table 5*). Such activities account for less than 10% of total self-employment (although about one fourth of self-employment without registered businesses). Secondary self-employment, as reported, does not seem to comprise a major segment of self-employment and will not be further explored here.

[19] Secondary self-employment in waged jobs is very rare for the whole observed period, while the share of respondents who report unpaid family work as secondary employment has fallen dramatically from 2.3% to 0.9%.

Table 5: Primary and secondary self-employment, as reported by persons in employment (%)

	1997		1/2000		1/2003	
	prim	sec	prim	sec	prim	sec
Small employers	4.4	0.1	4.5	0.1	4.3	0.1
Self-employed business owners	2.7	0.3	2.7	0.2	2.6	0.1
Self employed without a registered business	1.9	0.5	2.0	0.4	1.8	0.5
Solo self employed in the agricultural sector	7.6	1.0	7.1	1.0	8.7	0.9
Total self-employment	18.4	1.9	19.3	1.8	20.4	1.6

7. All Different, all Self-employed: Patterns of Distinction among the Self-employed

7.1 Occupational Status

What is the prevalent occupational position of the self-employed? Altogether, the self-employed comprise a majority of total employment in managerial and agricultural occupations. Separately, all four segments of self-employment exhibit different occupational patterns[20].

Table 6: Distribution of self-employment types among the ISCO occupational groups (%)

	Small employers	Self-employed business owners	Self-employed without a registered business	Employees	Self-employed as share of occupational group
1 - Legislators, senior officials and managers	68.5	26.7	0.0	3.3	63.0
2 - Professionals	8.8	7.7	4.4	10.8	8.6
3 - Technicians and associate professionals	2.5	2.3	8.2	17.6	2.7
4 - Clerks	1.1	6.8	6.3	13.8	3.6
5 -Service workers and shop and market sales workers	6.8	18.1	11.3	16.7	8.2
6 - Skilled agricultural and fishery workers	3.8	5.0	3.1	.5	72.8
7-Craft and related trades workers	5.2	18.1	28.3	14.5	11.5
8 - Plant and machine operators and assemblers	3.0	14.9	8.2	12.7	7.4
9 –Elementary occupations	.3	.5	30.2	10.0	8.1
N	365	221	159	5530	
Non agricultural self-employment only (first three columns): Chi square=425.0, p<0.01, Cramer V=0.53 Lambda=0.33 (self-emp. type dependent) / 0.11 (occupation dependent) (all p<0.01) Uncertainty coefficient: 0.29/0.16					

A majority of small employers are concentrated within the managerial group. Although exercising only immediate control (Scase and Goffee, 1982), most small employers define their jobs as managerial; that is jobs which involve control over

[20] This sub-section will not consider the self-employed in the agricultural sector since this group is defined by agricultural occupation and its members, by default, belong to ISCO group 6: agricultural/fishery workers.

production process, and the labour of others. Brooksbank (2000: 224) comments on this humorously as "…the urge for most self-employed to declare themselves as managers." Professionals are also well represented within the small employer category.

Self-employed business owners are as well likely to define their jobs as managerial, despite of not directly or permanently controlling labour. They are underrepresented in high status professional/technical occupations and absent from unskilled occupations.

The self-employed without registered business are absent from the managerial category, confirming their lack of control. They are more likely than others who are self-employed to occupy auxiliary technical positions and are largely concentrated in elementary occupations and crafts/trades.

Occupational patterns of this classification, to a large extent, overlap classification constructed by Müler and Arum (2004) under rather different assumptions. They based their analyses on the classification of non-agricultural self-employment, according to occupational status. Their categories of professional/managerial, skilled and unskilled workers correspond to dominant occupational traits of self-employment groups analysed here.

7.2. Job Characteristics

Do different kinds of self-employment tend to concentrate in particular kinds of jobs? There seems to be some association between type of self-employment and the industrial sector (*Table 7*), different patterns of working time, work arrangements, and work-

related benefits (*Table8*). First multinomial logistic regression model uses those variables as predictors for self-employment status (*Table 9*)[21].

Table 7: Distribution of self-employment types among the Singelmann's industrial sectors. (%)

	Small employers	Self-employed business owners	Self employed without a registered business	Employees	Self-employed as share of industrial sector
Extractive	4.4	5.4	17.0	4.0	62.5
Transformative	25.5	21.3	32.1	35.7	8.8
Distributive	32.1	42.5	8.2	21.1	16.0
Business services	11.2	7.2	7.5	6.8	15.5
Social services	6.0	3.2	4.4	23.4	2.7
Personal services	20.8	20.4	30.8	9.0	25.0
Self-employment only (first three columns): Chi square=78, p<0.01, Cramer V=0.23 Lambda=0.07 (sector dependent, p<0.01) /0.03 (self-emp. type dependent, n/s.) Uncertainty coefficient: 0.03/0.05					

Table 8: Job characteristics: Working time, working patterns and social insurance. (%)

	Small employers	Self-employed business owners	Self employed without a registered business	Solo self employed in the agricultural sector	Employees
Working time:					
Working short hours (<36/week)	1.4	11.8	58.8	36.0	1.3
Working standard hours (36-42/week)	68.8	60.2	24.4	25.4	88.0
Working long hours (43-59/week)	15.2	14.0	11.3	20.3	8.0
Working extra long hours (60+)	14.6	14.0	5.6	18.3	2.6
Working patterns:					
Saturdays	81.2	83.7	87.5	97.7	65.0
Sundays	37.9	40.7	44.4	84.6	29.9
Evenings	45.5	44.8	39.4	51.1	36.4
Nights	16.9	22.6	16.3	12.6	19.9
Social insurance:					
Health insurance[22]	98.6	93.7	12.5	23.9	98.2
Pension contributions	98.4	94.1	10.6	18.0	98.0

[21] Since individual farm workers are defined as a subset of the extractive sector, this category is not included in order not to distort the regression model. Same applies for all-inclusive regression (*Appendix 2*)

[22] Health insurance indicator is omitted from multinomial regression since it is highly associated with pension contributions indicator (phi >0.9 within all non-agricultural self-employment groups, and 0.75 in agriculture).

Table 9: Multinomial logistic regression 1: job characteristics.

	Small employers		Self-employed business owners		Self employed without a registered business	
	B	Sig.	B	Sig.	B	Sig.
Intercept	-2.548	.000	-2.991	.000	-5.508	.000
Industrial sector						
Extractive	**-0.675**	**.022**	-0.390	.260	0.385	.381
Transformative	**-1.171**	**.000**	**-1.135**	**.000**	-0.438	.213
Distributive	**-0.411**	**.012**	0.055	.784	**-1.340**	**.002**
Business services	-0.138	.533	-0.471	.137	-0.399	.474
Social services	**-1.813**	**.000**	**-2.463**	**.000**	**-1.628**	**.004**
Personal services (ref)	-		-		-	
Working time:						
Working short hours (<36/week)	0.513	.288	**2.738**	**.000**	**2.192**	**.000**
Working standard hours (36-42) (ref)	-		-		-	
Working long hours (43-59/week)	**0.727**	**.000**	**0.700**	**.001**	0.524	.182
Working extra long hours (60+)	**1.889**	**.000**	**1.854**	**.000**	-0.201	.671
Working patterns:						
Evenings	0.128	.381	-0.178	.350	**-1.013**	**.001**
Nights	**-0.603**	**.001**	-0.034	.878	0.221	.555
Saturdays	**0.516**	**.001**	**0.649**	**.002**	0.692	.075
Sundays	-0.116	.449	-0.153	.419	0.070	.819
Pension contributions	**0.977**	**.027**	0.404	.247	**-5.021**	**.000**
-2LL: 1110, df: 39, Pseudo R^2 McFadden: 0.241						

Odds of being a small employer, as opposed to being an employee, are highest in personal or business services, somewhat lower in the distributive or extractive sector, and least in the transformative and social service sectors. It seems that this group involves itself in both entrepreneurial activity in the high-growth business sector, and the more traditional small ownership – primarily in the hotel/restaurant subsector, which accounts for 13.2% of small employers. Working long or extra long hours, which is likely to continue into Saturdays, is a well documented characteristic of small employers (Hakim, 1998, Harrison, 2004). A high level of control over conditions of work, manifested in not working during the night and paying pension contributions, is also a predictor of small employer status.

The odds of operating a self-employed business are rather similar for most sectors, but lower in the social service and transformative sectors. Almost half of those

who run solo businesses work in the distribution sector and 15.8% work in the small-scale transportation sub-sector which has a long-standing tradition from socialist times. Self-employed business owners exhibit great variation in working-time arrangements, reflecting their freedom to set-up their own working regimes. Workers doing long hours (or Saturdays) are more likely to be self-employed, but so are those who work short hours.

Workers in personal or business services, extractive or transformative industries, working short hours, consequently not working Saturdays, and not paying contributions, are most likely to be among the self-employed who do not have registered business. This kind of self-employment is concentrated in extractive activities, the construction sub-sector of the transformative sector (20.1%), and in personal services with low capital barriers (other services or working for private households). Prevalent short working hours and non-payment of contributions are more likely to mark structurally imposed underemployment and vulnerability than worker's choice. Short working hours are stimulated by labour legislation which effectively externalizes time-flexibility by making it more convenient to contract out short-hour tasks than to hire employees on a part-time basis. Similarly, civil contracts used to be the most common way of avoiding the obligation to pay contributions (usually not on worker's terms), although recent changes in legislation which made such contributions mandatory (Zuber, 2003) might reduce this form of self-employment.

A majority of the self-employed in the agricultural sector are outside the pension and contributory health insurance system. Working patterns of agricultural work are "controlled" by natural cycles and demand continuous work. Since data for one LFS dataset is collected over half a year, variation in weekly working time might reflect changes between periods of intense and lax work rather than constant working time. The

specific demographic composition of this group is certainly related to both insurance and working time issues.

7.3 Personal Characteristics

All self-employment is primarily male dominated, with women comprising only 24.4% of small employers, 25.3% of self-employed business owners, and 33.8% of self-employed without a business. Only in agricultural self-employment is female participation (43.9%) not much lower from its level among employees (44.9%). There is a common notion that gender is not only strongly related to entrepreneurial involvement, but female self-employment exhibits different occupational, industrial, and time-use patterns (McManus, 2001, Hakim, 1998). To this cause, previous regression was repeated with gender and interaction effects included, but the model fit increased only slightly and interactions were found were few,[23] indicating similarity in self-employment patterns for both sexes.

Self-employment is generally more prevalent in the middle phase of careers, when adequate work experience and capital are accumulated to successfully manage one's business (e.g. Brooksbank, 2000, Smeaton, 2003). This is true for both self-employed business owners and small employers, although there is less variation in age of the latter. Other forms of self-employment have different age distributions. Self-employed workers without a registered business are likely to be found in any age group, while self-employed in the agricultural sector tend to be much older. The current age of those who are self-employed is not telling of age when the transitions to self-employment happen, and a higher average age might just mean higher self-employment stability (see 7.6).

[23] While -2LL decreased from 1402 to 1319 and McFadden pseudo R^2 increased slightly from 0.25 to 0.26., only few statistically significant interaction effects occurred.

Table 10: Age structure.

	Small employers	Self-employed business owners	Self employed without a registered business	Solo self employed in the agricultural sector	Employees
16-25	4.2%	5.9%	20.6%	2.8%	12.3%
26-35	18.5%	19.9%	16.3%	9.6%	25.2%
36-45	35.7%	38.0%	28.8%	19.7%	32.4%
45-55	32.0%	26.2%	19.4%	22.1%	25.1%
55-65	8.7%	7.2%	10.6%	24.0%	4.9%
65+	0.8%	2.7%	4.4%	21.8%	0.1%
Mean (standard deviation)	43.2 (9.78)	42.4 (11.11)	40.4 (13.61)	52.8 (14.24)	39.2 (10.43)
Median	44	42	41	53	40

The association between self-employment status and educational level is rather weak once agricultural self-employment is omitted. It seems that small employers are a bit more likely to possess general and academic education, the solo self-employed lean towards vocational training, as do the self-employed without a registered business. The self-employed in agriculture generally have little education, yet this might be due to cohort effect.

Table 11: Educational structure. (%)

	Small employers	Self-employed business owners	Self employed without a registered business	Solo self employed in the agricultural sector	Employees
Unfinished elementary education (1a)	1.4	1.8	6.3	29.1	1.2
Elementary education (1c/2ab)	5.8	12.2	21.9	44.2	13.8
Three year vocational school (2c_voc)	32.3	43.4	43.1	19.3	30.4
Four year technical or grammar school (2c_gen)	33.4	23.5	21.9	6.9	32.9
Lower tertiary education (3a)	8.2	5.9	1.9	0.5	7.4
Higher tertiary education (3b)	18.9	13.1	5.0	0.1	14.3
Self-employment only (four columns): Chi square=674, p<0.01, Cramer V=0.38 Lambda=0.21 (self-emp. type dependent) / 0.18 (education dependent) (p<0.01) Uncertainty coefficient: 0.21/0.16		Non-agricultural self-employment (three columns) Chi square=70.0, p<0.01 Cramer V=0.22 Lambda=0.05 (self-emp. type dependent / 0.007 (education dependent) (n/s) Uncertainty coefficient: 0.046/0.032			

The second multinomial logistic regression model examines the effect of personal characteristics on the odds of being self-employed rather than an employee. In general, it supports descriptive observations laid out above.

Table 12: Multinomial logistic regression 2: personal characteristics.

	Small employers		Self-employed business owners		Self employed without a registered business		Solo self employed in the agricultural sector	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Intercept	-6.194	.000	-3.305	.000	0.468	.516	0.617	.253
Age	**0.107**	**.007**	-0.022	.591	**-0.195**	**.000**	**-0.158**	**.000**
$Age^2/100$	-0.086	.066	0.061	.208	**0.250**	**.000**	**0.258**	**.000**
Gender: female	**-0.897**	**.000**	**-0.736**	**.000**	-0.262	.131	0.162	.104
Education level								
Unfinished elementary education (1a)	0.662	.200	0.138	.804	0.758	.055	**1.106**	**.000**
Elementary education (1c/2ab) (ref)	-		-		-		-	
Three year vocational school (2c_voc)	**0.890**	**.000**	**0.444**	**.048**	-0.144	.507	**-1.297**	**.000**
Four year technical or grammar school (2c_gen)	**1.047**	**.000**	-0.059	.807	**-0.782**	**.002**	**-2.331**	**.000**
Lower tertiary education (3a)	**0.791**	**.009**	-0.146	.672	**-1.816**	**.003**	**-3.833**	**.000**
Higher tertiary education (3b)	**1.159**	**.000**	0.052	.849	**-1.490**	**.000**	**-5.877**	**.000**
-2LL: 3193, df: 32, Pseudo R^2 McFadden: 0.194.								

Being female decreases the odds of being a small employer or a business owner, but not of being in the other two forms of self-employment.

The age function takes three distinctive shapes for different self-employment types. The odds of being a small employer first rise with age and then decrease, following a concave shape. This is in consent with common findings on those who are self-employed (e.g. Le, 1999). The odds of being a self-employed business owner rather than an employee are not affected by age at a statistically significant level. For farm workers and the self-employed who do not own businesses, age function has a convex shape; odds are minimal at mid-career, but increase towards either end of age distribution. This does not fit the "capital accumulation" assumption, but might reflect limited (legal and other) labour market opportunities for young and older workers. It seems that among marginal age groups, marginal types of self-employment are dominant.

Possession of secondary or higher education, especially general education, adds to the chances of being a small employer. Vocational secondary education, on the other hand, is positively related to being a self-employed business owner. Not having general secondary or tertiary education increases the risk of being self-employed without a registered business, while higher levels of education almost linearly decrease the odds of being self-employed in agriculture, as opposed to being in waged employment.

It seems that possession of a high level of institutionally transmitted human capital contributes to being a small employer (Luber et al, 2000, Arum and Müler, 2004 reach analogous findings for managerial/professional self-employed and more prestigious industrial sectors). Human capital achieved through the vocational track, as suggested by Róbert and Bukodi (2000), is related to non-agricultural solo self-employment status.

7.4 Household Characteristics

Households provide numerous resources (financial, social and cultural capital) to its members, as well as various constraints and demands (provisioning, household work, group attachment, and submission to household authority) that all shape and are shaped by the work experiences of their members. What are the household patterns of the self-employed like?

Table 13: Household characteristics: Home ownership, marital status and employment status of other household members. (%)

	Small employers	Self-employed business owners	Self employed without a registered business	Solo self employed in the agricultural sector	Employees
Owns home	85.2	84.2	77.5	94.5	83.7
Marital status:					
Married, cohabitating	87.9	77.8	52.5	76.4	69.9
Single	9.3	13.6	35.0	10.7	24.3
Other (divorced, widowed, separated)	2.7	8.6	12.5	12.9	5.7
Activity of other household members:					
Other household member self-employed	18.9	16.3	31.9	38.1	13.3
Other household member employees	60.3	45.7	38.8	30.8	61.9
Other household member unpaid family worker	4.7	3.6	1.3	29.2	2.1

Home ownership is the most common form of residence in Croatia, but it still indicates a higher level of family resources. It seems to be less prevalent among the self-employed without registered businesses. Land ownership is a prerequisite for family based agricultural work, which is likely to be reflected in a high level of home ownership[24].

Being married indicates both the existence of spousal support and being in a position of responsibility and control within the household. A common finding that those who are self-employed are particularly likely to be married is confirmed by CLFS data for all but the self-employed without registered businesses.

Self-employment is likely to run in families (e.g. McMillan, 2001, Braines and Wheelock, 1998, Arum and Müler, 2004); means of production, contacts and skills are likely to be shared and transmitted within the household. Dataset limitations do not allow testing for inheritance or transition patterns, but they do permit exploration of current employment status of other household members. The third multinomial logistic model estimates this association Patterns in which households are structured seem to differ among self-employment types.

[24] However, lower value of houses in rural areas makes house ownership a weaker indicator of resources for farm workers than for other groups.

Table 14: Multinomial logistic regression 3: household characteristics.

	Small employers		Self-employed business owners		Self employed without a registered business		Solo self employed in the agricultural sector	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Intercept	-.958	.015	-2.701	.000	-3.504	.000	2.231	.000
Household size	**-0.105**	**.024**	-.038	.498	-0.115	.100	**-0.223**	**.000**
Activity of other household members								
Other household member self-employed	**0.418**	**.006**	.053	.790	**1.182**	**.000**	**1.233**	**.000**
Other household member employee	-0.059	.636	**-.675**	**.000**	**-0.509**	**.006**	**-0.785**	**.000**
Other household member unpaid family worker	**0.813**	**.003**	.487	.197	-0.717	.322	**2.899**	**.000**
Marital status:								
Single	**-1.270**	**.000**	**-.831**	**.000**	**0.546**	**.003**	**-1.351**	**.000**
Other	**-1.064**	**.001**	0.009	.973	**0.937**	**.001**	**0.537**	**.000**
Married/cohabitating (ref)	-		-		-		-	
Own house	0.178	.250	0.106	.577	**-.444**	**.025**	**1.110**	**.000**
-2LL: 1665, df: 28, Pseudo R^2 McFadden: 0.118								

The presence of other self-employed in a household might indicate either intergenerational reproduction or spousal involvement, either in same or different businesses. All self-employed but those running solo businesses are more likely than employees to have other household members in self-employment. This association is strongest for the self-employed without registered businesses and for those in agriculture. It might not be the case that all self-employment runs in "families," but precarious and marginal forms likely do.

The presence of other household members in employment could increase business stability by providing additional reliable resources to the household (Le, 1999). All self-employed but small employers are less likely than employees to have other family members in waged employment.

The presence of unpaid family workers in the household should be an important trait of "family business" (Braines and Wheelock, 1998), yet it is generally scarce, except in agriculture. Only agricultural workers and, to a smaller extent, employers are more likely than employees to have unpaid family workers in their households.

A rather low incidence of self-employment and unpaid family work within the households of the self-employed in the non-agricultural sector does not mean that household members do not assist at all, but that in the Croatian context such engagement is seldomly their main (or secondary) labour market activity.

When all three sets of characteristics (job, personal, and household) were included into the multinomial logistic model, most patterns persisted[25] and conservative McFadden's pseudo R^2 reached 0.3 (*Appendix 2*). This rules out some compositional effects and reinforces the validity of observations from this chapter.

7.6 Reported Income

There is a considerable difference in the level of remuneration typical for various forms of self-employment (*Table 15*). This is in line with findings of Hanley (2000) for several transitional countries in 1993, where employers were generally better off than employees, while self-employed had incomes similar to or slightly above those in waged employment.

Table 15: Central tendency measures of reported income (in Kuna; 1£=11kn).

	Mean income	Standard deviation	Median income
Small employers	4180	(3120.78)	4000
Self-employed business owners	3042	(1742.95)	2500
Self employed without a registered business	1762	(1409.63)	1500
Solo self employed in the agricultural sector	1039	(1481.17)	600
Employees	3407	(1918.88)	3000

The OLS regression on the natural logarithm of reported income of those who are self-employed confirms that there is a clear hierarchy of income among different

[25] Effects of household size and age were suppressed, but for the self-employed without enterprises, (whose age function became concave, but rather weak). Association with vocational education became more pronounced for self-employed business owners and the self employed without registered businesses alike. After job and household controls were included, the self-employed without businesses ceased to be less likely than employees to have employed household members or to possess tertiary education.

self-employment types. Small employers are likely to have the highest earnings, closely followed by self-employed business owners. The self-employed without registered businesses are likely to earn much less, while the self-employed in agriculture earn the least[26]. Taken at face value, differences in income level is a good indicator of the distinctiveness of self-employment types.

Table 16: OLS regression on the natural logarithm of reported income.
Small employers used as a reference category.

	Without controls		Controlling for gender, age, working hours, education and industrial sector	
	B	Sig.	B	Sig.
Self-employed business owners	-0.09	0.028	-0.10	0.004
Self employed without a registered business	-.815	0.000	-.043	0.000
Solo self employed in the agricultural sector	-1.219	0.000	-0.64	0.000
Model R^2	0.31		0.55	

When a set of income-relevant indicators is introduced in the regression as a control, relative differences in income are reduced, but persist. The effect of self-employment status, which is not explained away as a composition effect of control variables, might be interpreted as lower productivity or an unfavourable structural position inherent to certain self-employment types. In terms more consistent with the classification adopted, income differences emerge from increased exploitation due to lack of control and legal protection, or, in the case of agricultural self-employment, outdated modes of production.

7.7 Entry and Exit

What are the patterns of entry to self-employment jobs? In line with the hypothesis on resource constraints (Lu, 1999, Blanchflower, 2000), few enter any kind of self-employment directly after completing their formal educations. Waged employment seems to be the most frequent point of entry for small employers and for

[26] The self-employed in agriculture, as a rule, produces food for personal use, thus moderating their living standard.

self-employed businesses owners. Unemployment is a frequent point of entry to self employment without registered businesses only, while unwaged family work is the traditional path towards inherited self-employment in agriculture.

Table 17: Employment status prior to current employment. (%)

	Small employers	Self-employed business owners	Self employed without a registered business	Solo self employed in the agricultural sector	Employees
Education	4.5	4.5	8.8	7.9	18.2
Unemployment	9.0	14.9	31.3	7.4	21.8
Inactivity	1.1	1.8	11.9	9.9	1.5
Self-employment	4.2	4.5	2.5	4.2	1.4
Unwaged work	3.1	1.8	2.5	29.2	1.2
Army/recruited	3.1	4.1	8.1	4.3	7.1
Employment	75.0	68.3	35.0	37.2	48.9

Entry patterns can be modelled by applying multinomial logistic regression using current employment status as a dependent variable. The downside of this analysis is that it considers only heterogeneous groups of "survivors" who run their businesses at the time of the survey, and not all entrants to self-employment. As a control, the current job tenure variable is included. The effect of current tenure should indicate whether certain types of the self-employed tend to have shorter tenure, meaning either expansion of the self-employment sector or a high exit rate.

Table 18: Multinomial logistic regression 4: Entrance to self employment, work experience at the time of entry and current tenure.

	Small employers		Self-employed business owners		Self employed without a registered business		Solo self employed in the agricultural sector	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Intercept	-3.635	.000	-3.328	.000	-3.745	.000	-3.451	.000
Current tenure	**0.115**	**.000**	-0.026	.246	**-0.128**	**.000**	0.014	.267
Current tenure^2/100	**-0.404**	**.000**	0.064	.360	**0.198**	**.041**	**0.151**	**.000**
Tenure prior to current job	**0.116**	**.000**	**0.081**	**.003**	0.013	.624	-0.011	.535
Tenure prior to current job^2/100	**-0.254**	**.001**	-0.166	.078	0.155	.057	**0.331**	**.000**
Entry from:								
Employment (ref.)	-		-		-		-	
Education	**-0.983**	**.001**	**-1.159**	**.001**	0.470	.170	**-0.606**	**.001**
Unemployment	**-0.688**	**.001**	-0.393	.065	**0.914**	**.000**	**-0.436**	**.009**
Inactivity	-0.118	.823	0.299	.573	**2.852**	**.000**	**2.074**	**.000**
Self-employment	**0.686**	**.019**	**0.781**	**.025**	0.804	.133	**1.204**	**.000**
Unwaged work	**0.958**	**.005**	0.365	.491	**1.715**	**.002**	**2.953**	**.000**
Army/recruited	-0.532	.105	-0.390	.290	**1.234**	**.000**	-0.197	.373
-2LL: 5520, df: 40, Pseudo R^2 McFadden: 0.190								

Using employment as a reference category, entrants to new jobs arriving from self-employment or unwaged work have increased odds of being self-employers rather than employees, while arrival from education or unemployment decreases the odds. Entry to self-employed businesses exhibits a similar pattern, as does the agricultural self-employment (the only difference is that the former do not have unwaged work as a significant predictor, while entry from inactivity increases the odds for the latter). Entry from peripheral positions (or outside) of the labour market increases the odds for being self-employed without a registered business, marking a distinctive path to employment from other self-employment types. This is the only self-employment category likely to accommodate the "unemployment push."

Work experience accumulated prior to current job increases the odds of being[27] in any type of self-employment apart from self-employment without a registered business, although previous tenure function is different. Odds of being a small employer vary in curvilinear fashion, favouring workers with moderate previous work experience. Odds of being a self-employed business owner increase in a linear way, favouring workers with longer previous work experience. The odds of being a self-employed agricultural worker behave as a rising quadratic function, favouring workers who entered current employment with a very long work experience (and likely rather advanced age).

Tenure patterns vary as well. Self-employed business owners do not differ from employees in this respect. Small employers, on the other hand, are less likely to have very short or long tenures[28]. The odds of being self-employed without a registered

[27] Human capital both increases chances for entrance to self-employment and increases chances for survival (Arum and Müler, 2004), but with CLFS data it is impossible to distinguish between these effects.

[28] Very long tenures are unlikely because of limitations to entrepreneurial activities prior to 1990. Decreased odds of short tenured self-employment might be related with the end of "entrepreneurial kink" of early transition when numerous workers tried their luck as entrepreneurs, or currently more precarious

business, rather than being employed, decrease almost linearly with tenure. Since aggregated prevalence of all self-employment forms was rather stable in the last 6 years, this effect is likely due to high turnover. Agricultural self-employment is again associated with very high tenure, marking its stability and long-standing low entry rate.

CLFS data allows only the crudest observations about exit from self-employment. *Table 19* presents the share of the unemployed who were previously self-employed[29], contrasted with the share of self-employment in total employment. The share of ex-small employers in the unemployment pool is smaller than the share of small employers in total employment, while the self-employed without registered businesses exhibit the opposite pattern. This hints at the above-average stability of the small employer position and the precariousness of self-employment without a registered business.

Table 19: Prevalence of self-employed among working population and of ex-self-employed in unemployment pool, by type of self-employment. (%)

	Small employers	Self-employed business owners	Self employed without a registered business
Current share in employment	4.3	2.6	1.8
Current share in unemployment (last job reported as self-employment)	2.7	2.2	4.4

Differences in exit patterns are confirmed by reported willingness for a job change. While just a few small employers want to exit their businesses, a majority of self employed without registered businesses are looking forward to changing their jobs.

Table 20: Percentage of self-employed looking for a new job.

	Small employers	Self-employed business owners	Self employed without a registered business	Solo self employed in the agricultural sector
Want to change their current job	3.9	8.1	58.8	14.3

environment for business start-ups. However, decrease of odds is more likely to be artefact of recent decline in tenure of waged employment which is a reference category.

[29] This indicator does not account for all exits from self-employment, but only exits to unemployment. Furthermore, it is not measuring entry to the unemployment pool, but only the state of the unemployment pool.

8. Conclusion

According to date presented data, in Croatia self-employment is a well-established employment form; each of four self-employment types analysed has a substantial presence in the labour force. None of the self-employment types seems to be expanding or diminishing since the mid-nineties, despite the unemployment boom, decrease in activity rate and liberalization of the financial environment. Such persistence warrants examination of all self-employment types, since they are likely to retain their structural importance in the years to come.

Further analysis confirmed considerations on the heterogeneity of self-employment. All four forms of self-employment exhibit markedly distinctive patterns in most aspects examined:

Agricultural self-employment accounts for about a half of total self-employment, making it an essential group within the employment structure that should not be ignored. It is characterized by land tenure and working patterns imposed by nature. Income is generally low, as is participation in the social security system. Most self-employed in agriculture are in advanced age and possess very little formal education. There is a high level of stability characterized by long tenure. Agricultural self-employment is likely to operate as a traditional household production unit run by a married couple, which often relies on the labour of family members, while self-employment status is frequently inherited from the ranks of unpaid family workers.

Small employers are the second most prevalent group. They are most likely to be male, at the mid-point of their careers and possess an above-average education level, particularly in general education. They commonly hold well-remunerated jobs in managerial occupations within the business, personal or distributional service sectors. Small employers tend to work long hours (but not unsociable schedules), be married

and receive support from other household members who are likely to participate in employment or self-employment. Most entered their current status from waged employment or other self-employment, and are less likely and rather unwilling to leave their self-employment. As expected, this is the most prosperous group among the self-employed, yet its patterns depart from traditional self-employment and better fit a model of "spin-off entrepreneur;" workers with adequate skills, opportunities and resources choosing self-employment in prosperous sectors (Arum and Müler, 2004, Taylor, 1996).

Self-employed business owners are predominately male, tend to have a vocational education and are mostly dispersed among mid-level occupations, primarily in the distribution and personal services sectors. They report income comparable to employees (and probably under-report much more), and have highly varied working time patterns. Most entered their current self-employment from waged employment or self-employment, with considerable previous work experience, and have job stability comparable to employees. Self-employed business owners tend to be sole breadwinners and work literally on their own; although usually married, they are unlikely to have other family members in self-employment, employment or as unpaid family workers. This group would be a showcase example of traditional skilled petty bourgeoisie, craftsmen and shop-owners, if not for lack of family involvement. Yet this only reinforces the basic distinction of this group - absence of control over the labour of others (Wright, 1978).

Self-employed workers without a registered business comprise only one-tenth of total self-employment. This self-employment form is not discriminating with respect to sex or age (young and old actually being more likely be within this group). It is concentrated primarily in craft or elementary occupations within the low-end personal services, construction and extractive sectors. Labour of self-employed without

registered businesses is characterized by very low income, absence of social insurance, entrance from marginal labour market locations such as unemployment or inactivity, short tenure and high exit. Level of household resources, in terms of marital partner, house ownership or existence of a household member in waged employment, is as well less favourable for the self-employed without registered businesses. This kind of self-employment is obviously a precarious form of work, not having much in common with self-employment within registered business. The position of semi-independent self-employed workers seems actually worse than that of the proletariat, since they lack union or legal protection typical of an employment contract.

This analysis made a cause for the heterogeneity of current self-employment in Croatia and established a valid classification of four distinct self-employment types. On the other hand, it has contributed little to our understanding of the macro-level development and the individual dynamics of self-employment. More revealing research is needed to establish more comprehensible models (and eventually policies) regarding self-employment, including:

Additional research constructed to collect more detailed information about the working practices and attitudes of self-employed would leave much less ambiguity in interpretation than using crude CLFS indicators. In particular, a survey collecting detailed work history would enable exploration of entry to and exit from self-employment through transitional times (see Róbert and Bukodi, 2000, 2004).

Understanding of aggregated dynamics of self-employment could be improved by time series analyses exploring relationship of economic, demographic and regulatory/legal environment with the prevalence of various forms of self-employment.

Unfortunately, it would be difficult to reconstruct reliable measure of self-employment for period prior to introduction of CLFS[30] in 1996.

More generally, insight in structural position and role of self-employment within broader economy could be achieved by research focused on particular types of self-employment and their business and networking practices with each other, large business and state sector.

[30] As elaborated, CLFS itself is not very consistent with categorizations and collection methods prior to 2002.

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Appendix: Supplementary Tables

Table A1: Sectoral classification scheme, using ISIC-rev.3 codes, based on Singelmann (1978)

Sector	**Activity**	**ISIC-rev.3 codes**
Extractive	Agriculture, forestry, fishing	01-05
	Mining	10-14
Transformative	Construction	40-41
	Manufacturing	15-37
	Utilities	45
Distributive	Transportation	60-63.2, 63.4
	Communication	64
	Wholesale	51
	Retail	50.1, 50.3-50.5, 52.1-52.6
Business services	Banking	65, 67.1
	Insurance	66, 67.2
	Real estate	70-71
	Business services (including professional services)	72-74
Social services	Medical and health services	85.1-85.2
	Education	80
	Welfare and nonprofit	85.3, 91, 99
	Government	75, 90
Personal services	Domestic services	95-97
	Hotels and lodging	55.1, 55.2
	Eating and drinking	55.3-55.5
	Repair (auto, misc.)	50.2, 52.7
	Entertainment	63.3, 92
	Misc. personal services	93

Table A2: Multinomial logistic regression 1-2-3: Job, personal, and household characteristics.

	Small employers		Self-employed business owners		Self employed without a registered business	
	B	Sig.	B	B	Sig.	B
Intercept	-3.586	.001	-3.147	.006	-10.733	.000
JOB CHARACTERISTICS:						
Extractive	-1.198	.000	-0.905	.013	0.272	.579
Transformative	-1.497	.000	-1.489	.000	-0.630	.099
Distributive	-0.582	.001	-0.002	.993	-1.779	.000
Business services	-0.492	.038	-0.519	.117	-0.315	.597
Social services	-2.206	.000	-2.696	.000	-1.773	.004
Personal services (ref)	-		-		-	
Pension contributions	0.692	.128	0.405	.294	-5.157	.000
Working short hours (<36/week)	0.649	.195	2.750	.000	2.356	.000
Working standard hours (36-42/week) (ref)	-		-		-	
Working long hours (43-59/week)	0.784	.000	0.719	.001	0.511	.217
Working extra long hours (60+)	1.836	.000	1.813	.000	-0.264	.602
Evenings	0.346	.024	-0.046	.815	-1.001	.003
Nights	-0.888	.000	-0.310	.178	0.349	.383
Saturdays	0.703	.000	0.720	.001	0.521	.202
Sundays	-0.180	.263	-0.188	.336	0.068	.838
PERSONAL CHARACTERISTICS:						
Age	0.082	.077	0.002	.968	0.151	.018
$Age^2/100$	-0.057	.288	0.026	.630	-0.163	.019
Gender: female	-0.972	.000	-0.878	.000	-0.304	.319
Unfinished elementary education (1a)	0.359	.519	0.022	.971	0.475	.489
Elementary education (1c/2ab) (ref)	-		-		-	
Three year vocational school (2c_voc)	0.789	.002	0.541	.027	0.953	.011
Four year technical or grammar school (2c_gen)	1.107	.000	0.119	.653	0.084	.843
Lower tertiary education (3a)	1.069	.001	0.352	.341	-0.066	.937
Higher tertiary education (3b)	1.579	.000	0.772	.014	0.491	.459
HOUSEHOLD CHARACTERISTICS						
Household size	-0.069	.202	-0.002	.977	0.128	.310
Other household member self-employed	0.480	.005	-0.006	.977	0.807	.020
Other household member employee	-0.050	.707	-0.610	.000	-0.093	.764
Other household member unpaid family worker	0.942	.003	0.547	.184	-1.630	.093
Single	-1.121	.000	-0.876	.001	0.768	.068
Other	-0.762	.030	0.307	.300	1.070	.040
Married/cohabitating	0	.	0	.	0	.
Own house	0.026	.880	0.048	.816	-0.309	.344
-2LL: 4198, df: 84, Pseudo R^2 McFadden: 0.299						