

PIN – 01

Evidence Review

Small Business Growth and Productivity

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About PIN

The Productivity Insights Network was established in January 2018 and is funded by the Economic and Social Research Council. As a multi-disciplinary network of social science researchers engaged with public, private, and third sector partners, our aim is to change the tone of the productivity debate in theory and practice. It is led by the University of Sheffield, with co-investigators at Cambridge Econometrics, Cardiff University, Durham University, Glasgow Caledonian University, SQW, University of Cambridge, University of Essex, University of Glasgow, University of Leeds and the University of Strathclyde. The support of the funder is acknowledged. The views expressed in this report are those of the authors and do not necessarily represent those of the funders.

Table of Contents

Introduction.....	4
Perspectives on Small Business Growth.....	6
Micro-business Job Creation.....	7
Growth or Productivity?.....	10
Spatial Influences on Entrepreneurship and Small Business Performance	12
Bibliography	16

Introduction

This paper is concerned with small business and productivity. The extant research literature related to this topic is potentially very large in scale and scope. However robust, specific analyses on productivity in (British) small and medium sized enterprises (SMEs) are few and far between. The bulk of research focuses on SME growth, for obvious but prosaic reasons relating to availability of data. Studies of SME performance address a range of factors. These might be categorized as internal enablers, concerned with firm and entrepreneur characteristics, external economic and socio-cultural drivers, and internal operating constraints such as finance, human resource management and organizational capabilities.

The vast majority of studies examining different subsets of these factors are cross-sectional, often sector-specific, and, while they may contain internal detail, often fail to collect (or link to) reliable economic information from which value added constructs might be derived. By contrast longitudinal econometric analyses derived from administrative data provide helpful analysis of TFP/labour productivity and its broad correlates (Harris, 2017; Du and Bonner, 2016), but lack linkage to detailed, qualitative indicators of, for example, workforce skills, management quality, organizational capacity, access to finance or the attributes of individual owners. They may also fail to account for systematic differences between large and small firms in the role of particular drivers. Recent work such as the Blom and van Reenan surveys and the UK ONS management practices survey with linkage to administrative data are beginning to address this. The UK Government's own small business survey, since 2015 in a longitudinal form, contains much objective and perceptual information about operating conditions and constraints but does not include economic performance information beyond turnover (sales revenue) and employment (linkage to administrative data is restricted because of the sample design). SME survey respondents (with which the author has direct experience) are often surprisingly vague about both revenue and employment. In itself this is perhaps revealing about a lack of clear focus on productivity rather than cash-flow metrics, but in practice it means that researchers must rely on data that is often banded or subject to measurement error.

Within the SME growth literature there are various strands of work. For example, some studies focus on the business (enterprise) as the unit of analysis, whereas other work focuses on the entrepreneur (usually observed in survey as a self-employed business owner). Unsurprisingly the former tends to address questions of association between characteristics of the business and performance, whereas the latter tends to focus largely on the characteristics and traits of

the business owner. Datasets which combine the two are unusual, as are datasets which provide linked employee-employer data.

The UK context here is significant. A growing level of self-employed business ownership has been a feature of the UK small business landscape over the past 35 years (Deane, 2016; Mone, 2016). The UK self-employment rate has grown from under 8% in 1980 to around 15% in 2015, with growth particularly marked since the 2008 global financial crisis. Microbusiness numbers (i.e. below 10 employees) show a similar pattern. Growth in numbers has been far from spatially uniform. Recent commentary focuses on growth in self-employment numbers as indicative of the rise in the so-called “gig economy” and deterioration in job quality (Taylor et al., 2017). The issues presented by such “false” self-employment are largely about labour market regulation and therefore beyond our present scope. However, it is worth pointing out that despite concerns about self-employed internet-based “platform-working”, it is still the case that around 75% of the UK self-employed are business owners, as opposed to working as free-lancers or subcontractors (author’s own calculations from the Understanding Society longitudinal survey).

In principle there is no guaranteed connection between SME growth and productivity-enhancing improvement in value added. SME owners or decision-makers may often suffer from “don’t turn business away” syndrome, and therefore operate away from the efficiency frontier. Thus many ad hoc analyses of SME performance focus on employment, revenue or revenue per (FTE) employee as performance indicators. This has arguably contributed, at the level of policy design, to a preoccupation with “fast-growth” or “high growth” firms (see Du and Bonner, 2017 for an overview of definitions). Recent work (Anyadikes-Danes and Hart, 2017) has suggested, in any case, that growth may be episodic rather than a systematic feature of particular SMEs deserving of special attention. Predicting growth episodes, and particularly ones that move SMEs towards the efficiency frontier, may be a challenge.

Setting some of these caveats aside for the moment, this paper provides a broad overview of these literatures. This overview covers the following topics: the range of disciplinary and theoretical perspectives on SME growth and the absence of an integrated approach and clear understanding of the importance of absorptive capacity; the challenges that many micro-businesses face in the creation of jobs; the problem of focusing on SME growth rather than productivity; and finally, and importantly, the importance of spatial considerations when examining the SME landscape.

Perspectives on Small Business Growth

Reviews of the literature on small business growth identify a number of perspectives, each of which places different degrees of emphasis on particular disciplinary theoretical underpinning (economics, psychology, strategic management etc.) and emergent model constructs (Gibb and Davies, 1990; Wennekers and Thurik, 1999; Davidsson and Wiklund, 2000; Smallbone and Wyer, 2006; Dobbs and Hamilton, 2007; Wiklund et al., 2009; Coad, 2009). SME growth is a complex phenomenon, not least because SMEs are highly heterogeneous (Audretsch et al., 2015). An up-to-date meta-analysis of the findings contained across this literature is beyond the present scope, but is perhaps needed. One strand of literature, drawing on Gibrat's Law, focuses on the dynamics of stochastic growth (Mata, 1994). However, focusing on deterministic approaches, a number of explanatory perspectives can be identified.

A first approach focuses on the resources available to the small business, typically captured in financial, human and networking capital constructs (Cooper et al., 1994; Johannisson, 2000). A second focuses on the degree of munificence in the external market environment. This might be sectoral, spatial or macro-economic (Smallbone and Wyer, 2006; Hoogstra and Van Dijk, 2004). A third perspective, derived in greater measure from cognitive or behavioural perspectives, focuses on the characteristics of the entrepreneur or key business decision-making group, often encapsulated in the construct of entrepreneurial orientation (Miller, 1983; Davidsson, 1989) and in other entrepreneurial traits linked to growth attitude (Baum and Locke, 2004). A fourth, informed by a strategic management perspective, proposes that growth-promoting strategic fit is a function of the interaction of the first (internal resources) and second (external munificence) perspectives (Covin and Slevin, 1989).

Central to any analysis is the question of how the SME is able, within the confines of a particular business technology, to absorb intellectual, human and social (networking and knowledge spill-over) capital and translate these into productivity-enhancing performance outcomes for the business venture (Shane and Venkataraman, 2000). The potential research agenda here is large, conceivably encompassing a range of methods. Indeed, given the question of the appropriate unit of observation, the range of drivers and constructs and the availability of data, it may in fact be difficult to address all potential influences on SME performance within any given empirical implementation.

The absorptive capacity of the microbusiness (see Abreu et al., 2011 and reference to other work therein) might be conceptualized in terms of ability to make effective use of different resource dimensions – entrepreneurial, financial, and human capital. Entrepreneurial capital encapsulates the background and characteristics of the business owner, often captured in the

entrepreneurship literature through an entrepreneurial orientation construct. (The importance of entrepreneurial capital is touched on in later in terms of intervention to raise SME leadership capacity.) It will also reflect constraints, perceived or experienced by the entrepreneur. Financial capital will reflect the availability of financial resources, which in the case of a micro-business might comprise personal wealth, access to borrowing and “sweat equity”, and the willingness of the business owner to deploy these for business growth. More generally it will reflect the strength of constraints facing the SME on leveraging finance from external providers. This later concern has been the subject of extensive research and policy analysis (Owen et al., 2016). The absorptive capacity of the firm will also be influenced by the degree of munificence in the local economic and entrepreneurial environment, to be explored in more detail below.

Gaps:

- Limited integration of the different conceptual strands, to provide better assessment of the relative importance of internal versus external, resources versus place. This requires improved interdisciplinary perspectives on SME performance.
- Absorptive capacity, the ability of the business to translate knowledge into performance, is largely a concept explored in the management and innovation literature, but aside from understanding its association with indicators of workforce skill, R&D intensity and access to knowledge spillovers, it has tended to be avoided by productivity analyses. It seems likely that SMEs display high heterogeneity in absorptive capacity, but we need to understand more about this.
- Very recent research has begun to policy focus on high growth firms (and by implication “picking winners”. Instead focus has turned to episodic growth. The evidence here is very new but suggests the need for further work in collaboration with the ESRC Enterprise Research Centre, and a critical reassessment of high growth support activity.

Micro-business Job Creation

Job creation is an important indicator of entrepreneurial success, despite debate on the appropriate way to define and measure that performance (Gibb and Davies, 1990; Davidsson and Wiklund, 2000; Dobbs and Hamilton, 2007; Delmar and Wiklund, 2008; Carter, 2011). It has the advantage of being less susceptible to definitional ambiguity and measurement error. Furthermore, entrepreneurship policy is often motivated in terms of job creation (Storey, 2000), even if regional or industrial policy is framed in terms of value-added. There is an

obvious disconnect here, but it is one that rarely attracts comment. Entrepreneurship policy metrics typically focus on business formation rates, early stage entrepreneurial activity (Global Entrepreneurship Monitor) or rates of self-employment (Blanchflower et al., 2001).¹ However, it is far from clear whether micro-businesses necessarily create jobs for others (van Stel and Storey, 2004). The “first job hurdle” involves significant fixed costs and the majority of sole-trader businesses don’t progress through it, either because they have no aspiration to do so, or because it is too difficult to surmount. This hurdle relates to actual fixed costs of becoming an employer - having to manage payroll, establish appropriate employment policies and ensure payments of mandated social insurance (Mathur, 2010; Millán et al., 2013). In fact, rates of employment by the self-employed have fallen in the UK as self-employment has grown (Henley 2016a). This is hardly surprising as the average age of these businesses is reducing. Similar fixed cost hurdles may exist at around, say, 10 employees (from micro- to small-business) coinciding with a need to develop organizational structure and processes, as well as to the perceived non-monetary costs of acquiring business leadership and delegation skills (Kempster and Cope, 2010).

The literature on individual self-employment status is extensive, providing insight into whether business start-up activity is an entrepreneurial choice or an act of necessity, reflecting individual occupational and career decisions within a utility-maximizing framework (Douglas and Shepherd, 2002; Parker, 2009; Simoes et al., 2016). On the other hand, quantitative studies focusing on the characteristics of self-employed (micro-business) job creators are relatively few, compared to those examining firm characteristics and enterprise-level growth (Parker, 2009). An early meta-analysis is provided by Parker (2009, p. 295-6).² This research tend to be underpinned by an economic-theoretic approach in which job creation by the self-employed is modelled as derived labour demand (Henley, 2005). This is determined endogenously by final demand, the technological and resource configuration of the business, the supply conditions faced in the labour market, and any prevailing taxation regime (Carroll et al., 2000).

More recent studies have also addressed the role of constraints on the availability of these resources, such as financial illiquidity (Millán et al., 2015), or those resulting from mandated forms of social protection for employees of small businesses as varying between region or state (Mathur, 2010; Millán et al., 2013). All use general purpose individual or household surveys, providing evidence for a number of different countries: UK (Burke et al., 2002; Cowling et al., 2004; Henley, 2005), Netherlands (Van Praag and Cramer, 2001), USA (Fairlie and Robb, 2007) or a cross-national panel for 15 EU countries (Millán et al., 2014).

Econometrically, even if not conceptually, these studies largely focus on the discrete hurdle from sole-trader to employer. Selection of control factors is dictated by choices made by survey coordinators prior to the establishment of particular research agenda. General purpose surveys may include items on personality traits, but rarely allow measurement of specific constructs such as entrepreneurial orientation. Common findings on individual characteristics are that the job creation is negatively associated with being female or having minority ethnicity, positively associated with age, educational attainment, accumulated experience in self-employment, and in some studies financial inheritance, windfalls or saving activity (Burke et al., 2002; Cowling et al., 2004; Millán et al., 2013; Millán et al., 2015) as well as family background in entrepreneurship (Van Praag and Cramer, 2001; Henley, 2005; Millán et al., 2014).

A rather different conceptual approach to analyzing job creation by SMEs more generally is to be found in the job creation and destruction literature, drawing on secondary analysis of administrative business population data. In the US context declining levels of entrepreneurialism (start-up activity) are thought to have contributed to a slowdown in net job creation and growth among young, value adding businesses (Decker et al., 2014; Haltiwanger et al., 2016). This aside a key conclusion from this literature is that only a very small proportion of start-ups achieve productivity-enhancing growth. UK analyses are few in number (Barnes and Haskel, 2002; Disney et al., 2003; Hijzen et al., 2010) but tend to conclude that while small firms contribute significantly to job creation, this is matched by equally high levels of job destruction. Spatial and sectoral patterns are pronounced. Labour productivity growth is associated with higher net entry, because new entrants are typically more productive than the average, and is important in sectors with larger numbers of small firms.

Gaps:

- Research is edging towards an understanding of productivity drivers in SMEs but thorough analysis (in the British context) requires matched/linked datasets which include both data on the firm and on the characteristics/capabilities of owner-managers.
- Extant literature on SME job creation identifies a range of factors. Consensus about key influences is limited, aside from business owner gender, experience and qualifications, offering limited guidance for potential policy instruments pointers. Better understanding is needed about possible growth non-linearities/hurdles (e.g. 0-1 employees <10/>10 employees).

Growth or Productivity?

Although now somewhat dated, one of the most helpful analyses of SME productivity is a 2007 meta-analysis of the economic value of entrepreneurship (van Praag and Versloot, 2007). This reviews 87 studies in leading economics and entrepreneurship journals focused on the question of whether entrepreneurial firms outperform non-entrepreneurial. The empirical implementation of this definition is somewhat artificial: “entrepreneurial” are less than 7 years old, employ fewer than 100 and are new market entrants, and “non-entrepreneurial” the converse. The meta-analysis is therefore restricted to studies which permit comparison between young, small entrants and larger, older established firms. Performance is assessed in terms of employment (27 studies), innovation (21 studies), productivity and growth (25 studies) and “utility” (that is remuneration, risk or job satisfaction; 14 studies). The analysis concludes overwhelmingly that entrepreneurial firms outperform in terms of employment (all but 2 studies positive), although underperform in terms of quality of jobs created, and may also have mixed performance in terms of innovation. However, for present purposes, it is the findings on growth and productivity that are of particular interest. Definitions of productivity vary (various forms of labour productivity and TFP). The weight of evidence suggests that entrepreneurial firms are no more productive and potentially less productive. Only two studies find a positive association. On the other hand, there is considerable support for the hypothesis that entrepreneurial firms grow faster. Clearly it would be useful to have a meta-analysis of this form brought up to date, but one might conclude that from this that young SMEs do tend to grow faster and create employment, but fail to contribute to productivity growth, not least because levels of innovation may be lower and the quality of jobs created are poorer.

Growth intentions on the part of small business owner-managers may serve as an important predictor or driver of innovation and productivity enhancement. A key consideration is that in small, owner-managed firms these intentions are a feature of the experience and intrinsic motivation of business founders, whereas in larger firms performance is more likely to be driven by extrinsic factors such as performance incentives originating in equity and loan capital markets (Gkypali and Roper, 2017). Conversely the impact of innovation in small firms may be heavily mediated by owner-manager motivation, such that incremental innovation for small firms at or below the average has limited impact on performance. This may stand in contrast to econometric studies of the wider business population which highlight the beneficial impact of more standardized management practices, such as change management programmes (Bloom and van Reenen, 2005; Bloom et al., 2012).

One further area worthy of consideration is the efficacy and impact of specific interventions which aim to support small businesses and entrepreneurs in the acquisition of management

and leadership skills. While government, at various levels, has for some time promoted and funded such policy interventions, serious quantitative evaluation evidence is scarce, and rarely if ever addresses potential impact on productivity. A recent ESRC What Works Local Economic Growth Centre meta-analysis identifies over 700 studies of business advice provision across OECD countries, but of these only 23 meet the review's robustness standards (WWLEG, 2016). Although 9 of these allow evaluation of impact on productivity (turnover per employee), only one intervention was explicitly productivity orientated.

One British intervention specifically aimed at SMEs is the LEAD programme, developed at Lancaster University and delivered over the period 2004 to 2015 to around 2000 businesses across the North West of England and in Wales. A formal evaluation of programme delivery in the North West found that improved leaderships skills raised labour productivity (strictly sales revenue per employee) by £8,800, largely due to better management of human resource and organizational change (Wren and Jones, 2012). In general, the poor quality of SME policy evaluation has been noted (Storey, 2006). Evaluations rarely address participant selection bias. It is, therefore, hardly surprising that commentary is critical about the focus and execution of entrepreneurship policy (Shane, 2009; Arshed et al., 2014; Arshed et al., 2016).

Gaps:

- There is a need to update the meta-analysis of van Praag and Versloot to identify and account for a further 10 years of work, and to focus specifically on productivity, and on the robustness of the entrepreneurial/non-entrepreneurial distinction.
- Greater clarity is needed in understanding, in the context of SMEs and micro-businesses, the complementarity or otherwise of (turnover) growth, employment growth and productivity; i.e. achieving productivity improvement on the intrinsic or extrinsic margin.
- Robust evaluations of specific interventions to improve SME management and leadership capacity are scarce. Careful assessment and analysis is required of the related meta-analyses on business advice and support conducted by the ESRC What Works – Local Economic Growth Centre (WWLEG, 2016). Evaluation needs to be “designed in” to policy intervention. Recent work, some focusing on quasi-experimental evaluation methods, emerging from the ESRC Enterprise Research Centre also offers good guidance for UK evidence and needs to be assessed carefully.
- Building from the somewhat limited evaluations of more “holistic” approaches to improving SME leadership and management (e.g. the Lancaster LEAD programme), there remains an important unresolved question as to whether it is specific

management practices which raise productivity or the promotion of improved SME leadership mindsets, networking and ability to access tacit knowledge.

Spatial Influences on Entrepreneurship and Small Business Performance

There is no a priori reason to expect spatially uniformity. There are good reasons for thinking that many influences here will, at least in part, be locally determined and therefore subject to significant spatial variation. The policy support and business culture landscape is far from uniform. Small business and entrepreneurial performance may be stronger in localities where economic opportunity is stronger.³ However, in areas of higher economic vibrancy, it may be more difficult for small business owners to attract (high quality) employees. Local costs of employment may be higher, reducing further the ease with which jobs can be created for others. Nevertheless, the ability of micro-businesses to improve performance may depend more individual ability to navigate these issues, captured by their skills and characteristics as business owners.

Studies of job creation by the self-employed typically “mop-up” local area heterogeneity through the inclusion of higher level binary indicators for region or metropolitan area, rather than explain it through appropriate choice of covariates to capture underlying drivers. Only four studies link macro level indicators of local, regional or national economic vibrancy (Henley, 2005; Henley 2016a; Mathur, 2010; Millán et al., 2014).⁴ The latter is the more sophisticated in that it exploits an EU-wide longitudinal survey design linking national (but not local) level indicators of GDP and unemployment. The finding of a positive correlation between job creation and national educational attainment highlights the supply-side importance of both individual and national levels of human capital for self-employed job creation.

The balance between “prosperity-pull” and “recession-push” explanations for entrepreneurial activity is a common theme in the literature, and available empirical evidence, while tending to fall on the side of the former, has not fully resolved the ambiguity (Armington and Acs, 2002; Thurik et al., 2008; Parker, 2009; Vivarelli, 2013; Audretsch et al., 2015; Guerra and Patuelli, 2016; Henley, 2017a).

Locational factors may play a significant role in the establishment and growth of firms (Hoostra and van Dijk, 2004). Dominant conceptual approaches typically do not give consideration to locality, implicitly characterizing the entrepreneurial venture in an even and undifferentiated economic landscape. However, this is not the spatial setting in which business ventures are formed and developed. They may be influenced by a range of spatially differentiated factors

(Carlsson and Dahlberg, 2003). A broad typology of influences here largely mirrors the taxonomy of growth influences described earlier (Mason, 1991), as well as reflecting geographical variation in other factors. These might be systematised in terms of opportunity, resource and spill-over factors, as informed by recent resource-based perspectives on entrepreneurship (Alvarez and Busenitz, 2008; Foss, 2011), and inspired by Penrose's (1959) pioneering analysis of firm growth. In this context the concern is with the overarching question of whether circumstances for achieving entrepreneurial competitive advantage are more propitious in some localities compared to others. In particular, the resource-based approach highlights not only traditional concerns about the availability of financial and human capital resource, but also new "subjectivist" understanding (Foss et al., 2008) about alertness to opportunity and access to learning about opportunity. This might easily be framed through a spatial lens.

Local resource availability may also influence the capability and capacity to seize entrepreneurial opportunity. Human capital levels at the local level may also influence levels of entrepreneurial activity, both in terms of the quality of local labour resource, and in terms of the skills of actual or aspiring entrepreneurs (Parker, 2005; Millán et al., 2014). Small business ventures also require financial capital. In this respect previous research has highlighted the role of the housing market as a potential driver of entrepreneurial activity through a collateral availability mechanism (Black et al., 1996; Henley 2005; Disney and Gathergood, 2009; Reuschke 2016). The supportive intangible resource provided by a strong local entrepreneurial culture may also be important (Kibler et al., 2014). Culture may be difficult to define and conceptualise empirically. So researchers debate the importance of entrepreneurial culture versus entrepreneurial capital in the form of skills, experience and networks (Audretsch and Kielbach, 2004), and in turn these intangibles may influence the extent to which entrepreneurs are able to leverage tangible resource.

Specific studies have highlighted spatial variation in cultural support for enterprise (Fritsch and Storey, 2014; Hayton et al., 2002; Kibler et al., 2014; Audretsch et al., 2016), as well as other contextual munificence factors such as variation in financial and innovation systems (Audretsch et al., 2006; Stam and Bosma, 2015), and general levels of human capital in the region (Millán et al., 2014). These drivers may exert both positive and negative influences. Positive social norms, and institutions that support their creation, may encourage small business growth and job creation; on the other hand, local attitudes to business failure may contribute to entrepreneurial risk aversion. Institutional arrangements and policy support may operate at either national or regional levels or both (as in the UK since 2000), and may extend across a wide range of promoting factors such as digital and physical infrastructure in support

of access to wider national and international markets, regional variation in access to finance and venture capital, support for skills and human capital formation, and support for entrepreneurial social capital and the wider entrepreneurial eco-system (Westlund and Bolton, 2003). However, they may also place barriers and costs, intended and unintended, in way of growth.

Absorptive capacity may have a regional dimension (Abreu et al. 2011), illustrating the different contexts in which knowledge and information is acquired and spills over through social capital formation apparent in clustering and networking. Economic agglomeration may or may not also be important, reflecting debates about the relative importance of local agglomeration and knowledge spillover for entrepreneurial dynamism (Knoben et al., 2011). Formal modelling of the level of entrepreneurship in a local area highlights the potentially important impact of networking effects, and can offer explanations for entrepreneurial agglomeration (Minniti, 2005). Networking effects provide, in economic terminology, positive externalities; they allow entrepreneurs to acquire wider benefits from proximity to other entrepreneurs than might strictly be incorporated into the costs of business start-up and development. The reasons for such effects are various. Information spill-overs can arise from strong social ties (Rocha and Steinberg, 2005), which might be linked to entrepreneurial values formation (Hayton et al., 2002; Henley, 2016b). Knowledge spill-overs may also arise because, despite technological advance, the costs of knowledge transmission are increasing in distance (Acs et al., 2009).

Agglomeration effects may arise from entrepreneurial density in a particular area (Nyström, 2007), allowing clustering of private and public sector business support activity as well as “thick” market effects. The identification and disentangling of these effects is not easy in quantitative data, since it requires not only incorporation of “new economic geography” conceptualisations, but also datasets of sufficiently large size and richness to identify entrepreneur-to-entrepreneur or business-to-business linkage to produce generalizable conclusions. In summary there are a lot of largely unanswered questions. Quantitative measurement of all these institutional and cultural factors can be problematic. Spatial modelling techniques may help to describe, but may not offer significant contribution to understanding causality.

Finally, it should be noted that all these drivers may be long-lasting and persistent, implying that entrepreneurial success not only breeds success around it, but it also contributes forwards in time (De Groot et al., 2001; Acs and Mueller, 2008; Fritsch and Wyrwich, 2014; Fotopoulos and Storey, 2016; Henley, 2017b)). Transmission of entrepreneurial norms and values may

be intergenerational (Niittykangas and Tervo, 2005). This may have spatial patterning if individuals remain rooted to particular locations, and suggests that spatial divergence in levels of entrepreneurial activity is likely to be a strong feature of local area data.

This leads overall to a central gap in the evidence base - the largely unanswered question of whether it is the “who/what” (the characteristics of the individual entrepreneur, or perhaps the business) or the “where” (the economic and social characteristics of locality in which the business has been ventured) that is more important in determining productivity-enhancing job creation (Henley 2017a). Place may matter for entrepreneurial opportunity but less so for subsequent business performance.

Gaps:

- Small business formation and performance appears to display high levels of spatial dependence. While it is straightforward to model and describe this, there is still a need for significant work in terms of explaining spill-overs.
- In particular there is scope for more research to understand how local norms and entrepreneurial culture considerations influence small business performance.
- The key question here remains: “people” or “place”, or some combination of the two?
- Some recent research suggests that historical spatial patterns are very long-lasting. This suggests that establishing effective and cost-efficient policy instruments could be challenging. There is a need to assess carefully the state of knowledge so far from the ESRC What Works Local Economic Growth centre.

¹ Self-employment trends vary considerably, see OECD (2017), Self-employment rate (indicator). DOI: 10.1787/fb58715e-en (Accessed on August 2, 2017)

² An alternative quantitative strategy is to examine the macro-econometric relationship between self-employment and employment levels. See Fölster (2000) for such evidence.

³ See Henley (2017a) in the UK context. By contrast Fairlie (2013) appears to find older evidence from the US for the counter-argument that higher local unemployment encourages more entrepreneurship.

⁴ A further study (Millán et al., 2013), drawing on the same EU household panel survey, finds a positive driving role for household perceptions of the national business climate.

Bibliography

- Abreu, M., Grinevich, V., Kitson, M. and Savona, M. (2011), Absorptive capacity and regional patterns of innovation, Research Report 08 11, Department for Innovation, Universities and Skills.
- Acs, Z. and Mueller, P. (2008), Employment effects of business dynamics: mice, gazelles and elephants, *Small Business Economics*, 30(1): 85-100.
- Acs, Z. J., Audretsch, D. B., Braunerhjelm, P., and Carlsson, B. (2009). The knowledge spillover theory of entrepreneurship. *Small Business Economics*, 32(2), 15–30.
- Alvarez, S.A. and Busenitz, L.W. (2001). The entrepreneurship of resource-based theory, *Journal of Management*, 27:755-775.
- Anyadike-Danes, M. and Hart, M. (2017), The UK's high growth firms and their resilience over the Great Recession, Research Paper No. 62, ESRC Enterprise Research Centre, University of Warwick.
- Armington, C. and Acs, Z. (2002), The determinants of regional variation in new firm formation, *Regional Studies* 36(1), 33-45.
- Arshed, N., Carter, S. and Mason, C. (2014), The ineffectiveness of entrepreneurship policy: is policy formulation to blame? *Small Business Economics* 43(3), 639-659.
- Arshed, N. Mason, C. and Carter, S. (2016), Exploring the disconnect in policy implementation: a case of enterprise policy in England. *Environment and Planning C: Government and Policy*, 34 (8): 1582-1611.
- Audretsch, D.B. and Keilbach, M. (2004), Entrepreneurship capital and economic performance, *Regional Studies*, 38(8): 949-959.
- Audretsch, D.B., Kielbach, M.C. and Lehmann, E.E. (2006), *Entrepreneurship and Economic Growth*, Oxford, UK: Oxford University Press.
- Audretsch, D.B., Dohse, D. and Niebuhr, A. (2015), Regional unemployment structure and new firm formation, *Papers in Regional Science*, 94(S1), S115-S138.
- Audretsch, D.B., Obschonka, M., Gosling, S.D. and Potter, J. (2016), A new perspective on entrepreneurial regions: linking cultural identity with latent and manifest entrepreneurship, *Small Business Economics*, DOI: 10.1007/s11187-016-9787-9.
- Barnes, M. and Haskel, J. (2002), Job creation, job destruction and the contribution of small businesses: evidence for UK manufacturing, Economics Working Paper No. 461, Queen Mary University of London
- Baum, J.R. and Locke, E. (2004), The relationship and entrepreneurial traits, skill and motivation to subsequent venture growth, *Journal of Applied Psychology*, 89(4): 587-98.
- Black, J., de Meza, D. and Jeffreys, D. (1996) House prices, the supply of collateral and the enterprise economy, *The Economic Journal*, 106(434): 60-75.
- Blanchflower, D.B, Oswald, A. and Stutzer, A. (2001) Latent entrepreneurship across nations, *European Economic Review*, 45(4-5), 680-691.
- Bloom, N. and Van Reenen, J. (2005), *Measuring and Explaining Management Practices Across Firms and Countries*, Advanced Institute of Management, Anglo-German Foundation and Economic and Social Research Council.
- Bloom, N., Genakos, C., Sadun, R and van Reenen, J. (2012), Management practices across firms and countries, *Academy of Management Perspectives*, 26(1): 12-33.

- Burke, A.E., Fitzroy, F.R. and Nolan, M.A. (2002), Self-employment wealth and job creation: the roles of gender, non-pecuniary motivation and entrepreneurial ability, *Small Business Economics*, 19(3): 319-34.
- Carlsson, C. and Dahlberg, R. (2003), Entrepreneurship, firm growth and regional economic development in the New Economic Geography: Introduction, *Small Business Economics*, 21(2): 73-76.
- Carroll, R., Holtz-Eakin, D., Rider, M. and Rosen, H.S. (2000), Income taxes and entrepreneurs' use of labor, *Journal of Labor Economics*, 18(2): 324-51
- Carter, S. (2011), The rewards of entrepreneurship: exploring the incomes, wealth, and economic well-being of entrepreneurial households, *Entrepreneurship Theory and Practice*, 25(1), 39-55.
- Coad, A. (2009), *The Growth of Firms: A Survey of Theories and Empirical Evidence*, Cheltenham, UK: Edward Elgar.
- Cooper, A.C., Gimeno-Gascon, F.J and Woo, C.Y. (1994), Initial human and financial capital as predictors of new venture performance, *Journal of Business Venturing*, 9(5): 371-295
- Covin, J.G. and Slevin, D.P (1989), Strategic management of small firms in hostile and benign environments, *Strategic Management Journal*, 10(1): 75-87.
- Cowling, M., Mitchell, P. and Taylor, M. (2004), Job creators, *The Manchester School*, 72(5): 601-17
- Davidsson, P. (1989), Entrepreneurship - and after? A study of growth willingness in small firms, *Journal of Business Venturing*, 4(3): 211-226.
- Davidsson, P. and Wiklund, J. (2000), Conceptual and empirical challenges in the study of firm growth. In (eds.) Davidsson, P. Delmar, F. and Wiklund, J., *Entrepreneurship and the Growth of Firms*, Cheltenham, UK: Edward Elgar, pp. 39-61
- Deane, J. (2016), *Self Employment Review: an independent report*, UK Department for Business, Innovation and Skills <https://www.gov.uk/government/publications/self-employment-review> (accessed 11-7-16).
- De Groot, H.L.F., Nijkamp, P. and Acs, Z. (2001), Knowledge spillovers, innovation and regional development, *Papers in Regional Science*, 80(3): 249-253.
- Decker, R., Haltiwanger, J., Jarmin, R. and Miranda, J. (2014), The role of entrepreneurship in US job creation and economic dynamism, *Journal of Economic Perspectives*, 28(3): 3-24.
- Delmar, F. and Wiklund, J. (2008), The effect of small business managers' growth motivation on firm growth: a longitudinal study, *Entrepreneurship Theory and Practice*, 32(3): 437-457.
- Disney, R., Haskel, J. and Heden, Y. (2003), Restructuring and productivity growth in UK manufacturing, *Economic Journal*, 113: 666-694.
- Disney, R. and Gathergood, J. (2009), Housing wealth, liquidity constraints and self-employment, *Labour Economics* 16(1), 79-88.
- Dobbs, M. and Hamilton, R.T. (2007), Small business growth: recent evidence and new directions, *International Journal of Entrepreneurial Behaviour and Research*, 13(5): 296-322.
- Douglas, E.J. & Shepherd, D.A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship Theory and Practice*, 26(3), 81-90.
- Du, J. and Bonner, K. (2016) Decomposing UK aggregate labour productivity and growth: 1998-2013 using the ONS business structure database data, Research Paper No. 48, ESRC Enterprise Research Centre, University of Warwick.

- Du, J. and Bonner, K. (2017) Fast growth firms in the UK: definitions and policy implications, Research Paper No. 63, ESRC Enterprise Research Centre, University of Warwick.
- Fairlie, R.W. and Robb, A.M. (2007), Families, human capital and small business: evidence from the Characteristics of Business Owners survey, *Industrial and Labor Relations Review*, 60(2): 225-45.
- Fairlie, R.W. (2013), Entrepreneurship, economic conditions and the great recession, *Journal of Economics and Management Strategy* 22(2): 207-31.
- Fölster, S. (2000), Do entrepreneurs create jobs? *Small Business Economics* 14(2): 137-48.
- Foss, N.J. (2011), Entrepreneurship in the context of the resource-based view of the firm, in (ed.) Mole, K. and Ram, M. *Perspectives in Entrepreneurship: A Critical Approach*, London: Palgrave: 120-136.
- Foss, N.J., Klein, P.G., Kor, Y.Y., and Mahoney, J.T. (2008), Entrepreneurship, subjectivism and the resource-based view: toward a new synthesis, *Strategic Entrepreneurship Journal*, 2(1): 73-94.
- Fotopoulos, G. and Storey, D.J. (2016), Persistence and change in interregional differences in entrepreneurship: England and Wales, 1921-2011, *Environment and Planning A* (Online first) DOI:10.1177/0308518X16674336 .
- Fritsch, M. and Storey, D.J. (2014), Entrepreneurship in a regional context: historical roots, recent developments and future challenges, *Regional Studies*, 48(6), 939-954.
- Fritsch, M. and Wyrich, M. (2014), The long persistence of regional levels of entrepreneurship: Germany, 1925-2005, *Regional Studies* 48, 955-973.
- Gibb, A. and Davies, L. (1990), In pursuit of frameworks for the development of growth models for small business, *International Small Business Journal*, 9(1): 15-31.
- Gkypali, A. and Roper, S. (2017), Home alone: innovation and sales growth intentions amongs the solo self-employed, Research Paper No. 59, ESRC Enterprise Research Centre, University of Warwick.
- Guerra, G. and Patuelli, R. (2016), The role of job satisfaction in transitions into self-employment, *Entrepreneurship Theory and Practice*, 40(3), 543-572.
- Haltiwanger, J., Jarmin, R.S., Kulick, R.B., and Miranda, J. (2016), "High growth young firms: contribution to jobs, output and productivity growth", [US Census Bureau Center for Economic Studies Paper No. CES-WP-16-49](#)
- Harris, R. and Moffat, J. (2017), The UK productivity puzzle, 2008–2012: evidence using plant-level estimates of total factor productivity. *Oxford Economic Papers* 69(3): 529-549.
- Hayton J.C., George, G. and Zahra, S.A. (2002), National culture and entrepreneurship: a review of behavioural research, *Entrepreneurship Theory and Practice* 26(4), 33-53.
- Henley, A. (2005), Job creation by the self-employed: the roles of entrepreneurial and financial capital, *Small Business Economics* 25(2), 175-196.
- Henley, A. (2016a), Who and where are the self-employed job creators? unpublished conference paper, Institute for Small Business and Entrepreneurship 39th Annual Conference, Paris.
- Henley, A. (2016b), Does religion influence entrepreneurial behaviour? *International Small Business Journal* (online first DOI: 10.1177/0266242616656748).
- Henley, A. (2017a), The post-crisis growth in self-employment: volunteers or reluctant recruits? *Regional Studies*. 51(9), 1312-1323.

- Henley, A. (2017b), Spatial patterns of entrepreneurship in the UK: opportunity, resources and spill-over effects, unpublished conference paper, Institute for Small Business and Entrepreneurship, 40th Annual Conference, Belfast.
- Hijzen, A., Upward, R, and Wright, P.W. (2010), Job creation, job destruction and the role of small firms: firm-level evidence for the UK, *Oxford Bulletin of Economics and Statistics*, 72(5): 621-647.
- Hoogstra, G.J. and van Dijk, J. (2004), Explaining firm employment growth: does location matter?, *Small Business Economics*, 22(3-4): 179-192
- Kempster, S. and Cope, J. (2010), Learning to lead in the entrepreneurial context, *International Journal of Entrepreneurial Behaviour and Research*, 16(1): 5-34.
- Kibler, E, Kautonen, T. and Fink, M. (2014), Regional social legitimacy of entrepreneurship: implications for entrepreneurial intention and start-up behavior, *Regional Studies* 48(6), 995-1015.
- Knoben, J., Ponds, R. and van Oort, F. (2011), Employment from new firm formation in the Netherlands: agglomeration economies and the Knowledge Spillover Theory of entrepreneurship, *Entrepreneurship and Regional Development*, 23 (3-4): 135-157.
- Mason, C., (1991), Spatial variations in enterprise: the geography of new firm formation. In (eds.) Burrows, R. *Deciphering the Enterprise Culture: entrepreneurship, petty capitalism and the restructuring of Britain*, London, UK: Routledge, pp. 74-106.
- Mata, J. (1994), Firm growth during infancy. *Small Business Economics*, 6: 27-39.
- Mathur, A. (2010), Health insurance and job creation by the self-employed, *Small Business Economics*, 35(3): 299-317.
- Millán, A., Millán, J.M., Román, C. and van Stel, A. (2013), How does employment protection legislation influence hiring and firing decisions by the smallest firms? *Economics Letters*, 121(3): 444-448.
- Millán, J.M., Congregado, E., Román, C, van Praag, M and van Stel, A. (2014), The value of an educated population for an individual's entrepreneurial success, *Journal of Business Venturing* 29(5): 612-32.
- Millán, A., Millán, J.M., Román, C. and van Stel, A. (2015), Unraveling the relationship between the business cycle and the own-account worker's decision to hire employees, *International Entrepreneurship and Management Journal*, 11(2): 321-342.
- Miller, D. (1983), The correlates of entrepreneurship in three types of firms, *Management Science* 29(7): 770-791
- Minniti, M. (2005), Entrepreneurship and network externalities, *Journal of Economic Behavior and Organization* 57:1-27.
- Mone, M. (2016), *Boosting Enterprise in More Deprived Communities*, UK Department for Business, Innovation and Skills, <https://www.gov.uk/government/publications/boosting-enterprise-in-more-deprived-communities> (accessed 11-7-2016).
- Niittykangas, H. and Tervo, H. (2005), Spatial variations in intergenerational transmission of self-employment, *Regional Studies* 39(3), 319-32.
- Nyström, K. (2007), An industry disaggregated analysis of the determinants of regional entry and exit, *Annals of Regional Science*, 41: 877-896.
- Owen, R., Botelho, T., and Anwar, O. (2016), Exploring the success and barriers to SMS access to finance and its potential role in achieving growth, Research Paper No. 53, ESRC Enterprise Research Centre, University of Warwick.

- Parker, S. (2005), Explaining Regional Variations in Entrepreneurship as Multiple Occupational Equilibria, *Journal of Regional Science*, 45(4): 829-850.
- Parker, S. (2009), *The Economics of Entrepreneurship*, Cambridge, UK: Cambridge University Press.
- Penrose, E. (1959), *The Theory of the Growth of the Firm*, Oxford: Oxford University Press.
- Reuschke, D. (2016): The Importance of Housing for Self-employment, *Economic Geography*, DOI: 10.1080/00130095.2016.1178568
- Rocha, H.O. and Sternberg, R. (2005), Entrepreneurship: the role of clusters, theoretical perspectives and empirical evidence from Germany, *Small Business Economics*, 15(3): 193-208.
- Shane, S. (2009), Why encouraging more people to become entrepreneurs is bad public policy, *Small Business Economics* 33(2), 141-149.
- Shane, S. and Venkataraman, S. (2000), The promise of entrepreneurship as a field of research, *The Academy of Management Review* 25(1): 217-226.
- Simoës, N., Crespo, N., and Moreira, S.B. (2016) Individual determinants of self-employment entry: what do we really know? *Journal of Economic Surveys*, 30(4), 783-806.
- Smallbone, D. and Wyer, P. (2006), Growth and development in the small firm. In (eds.) Carter, S. and Jones-Evans, D. *Enterprise and Small Business 2nd Ed*, Harlow, UK: Prentice Hall.
- Stam, E. and Bosma, N. (2015), Growing entrepreneurial economies: entrepreneurship and regional development, in Baker, T. and Welter, F. (eds.), *The Routledge Companion to Entrepreneurship*, Oxford, UK: Routledge, pp. 325-340.
- Storey, D. (2006), Evaluating SME policies and programmes: technical and political dimensions. In *The Oxford Handbook of Entrepreneurship*, ed. M. Casson, B. Yeung, A. Basu and N. Wadeson, pp. 248–80. Oxford: Oxford University Press.
- Taylor, M., Marsh, P., Nicol, D. and Broadbent, G. (2017), *Good Work: the Taylor review of modern working practices*, London: Department for Business, Energy and Industrial Strategy.
- Thurik, A.R., Carree, M, van Stel, A and Audretsch, D. (2008), Does self-employment reduce unemployment, *Journal of Business Venturing* 23(6), 673-686.
- Van Praag, C.M. and Cramer, J.S. (2001), The roots of entrepreneurship and labour demand: individual ability and low risk aversion, *Economica*, 68: 45-62.
- Van Praag, C.M. and Versloot, P.H. (2007), What is the value of entrepreneurship? A review of recent research, *Small Business Economics*, 29(4): 351-82.
- Van Stel, A. and Storey, D.J. (2004), The link between firm births and job creation: Is there a Upas tree effect? *Regional Studies* 38(8), 893-909.
- Vivarelli, M. (2013), Is entrepreneurship necessarily good? Microeconomic evidence from developed and developing countries, *Industrial and Corporate Change* 22(6), 1453-1495.
- Wennekers, S. and Thurik, R. (1999), Linking entrepreneurship and economic growth, *Small Business Economics*, 13(2), 27-55.
- Wiklund, J., Patzelt, H. and Shepherd, D.A. (2009), Building an integrative model of small business growth, *Small Business Economics*, 32:351-374.
- Wren, C. and Jones, J. (2012), *Quantitative Evaluation of the LEAD Programme, 2004-11*, Institute for Entrepreneurship and Enterprise Development, Lancaster University <https://www.lancaster.ac.uk/media/lancaster-university/content-assets/documents/lums/business/LEADeval2011.pdf> (accessed 26-2-2018)

WWLEG (2016), Evidence Review 2: Business Advice, ESRC What Works Local Economic Growth Centre, London School of Economics (June)
http://www.whatworksgrowth.org/public/files/Policy_Reviews/16-06-15_Business_Advice_Updated.pdf (accessed 21-2-18).