LEVERHULME TRUST _____

Research Project Grant Full

Applicant: Professor Graeme Acheson	ID/Ref: 95674	
Project Title: The entrepreneurs who made Glasgow: the city and its businesses 1861-1901		
Submission Date: Total Requested: £141,874		

Principal Applicant Details

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Co-Applicants

CO-APPLICANT 1

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First Name	Linda	Address Line 2	
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Total time to be spent on the project (hours per week)	
4	

Contribution of Co-Applicant

Co-Investigator Perriton will make three main contributions to the project: 1) Providing input and expertise in relation to the social history aspects. 2) Co-writing the academic outputs of the project. 3) Help the RA write the app to appeal to non-academic audiences.

Perriton has an established profile in gender and business history research. Her work on the implications of married women's use of savings banks has helped to correct the established historiography of working class

finances, and marriage. The continuing research in to the records of the Limehouse Savings Bank links census records of depositors with their financial transactions in order to gauge the impact of life events on savings. Her earlier work focused on how women, prior to the mid-20th century, acquired business management competence and experience.

Perriton will bring experience of writing business history using a social history frame to the project team, especially in the subject area of gender and diversity. This will be key to capturing the complexity of the social demographics of the individual business proprietors in the academic outputs, and also bringing those stories to life in the guided walking app text. Her role will be in helping the RA write the app to appeal to non-academic audiences.

CO-APPLICANT 2

Prefix	Dr	Address Line 1	Áras Na Laoi (Lee House)
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Total time to be spent on the project (hou	urs per week)
4	

Contribution of Co-Applicant

Co-Investigator McLaughlin will make three main contributions to the project: 1) Provide input and expertise in relation to the economic and business history aspects of the project. 2) Provide expertise in GIS analysis 3) Coordinate the data management aspect of the project.

Mclaughlin has an established profile in economic and business history research. He has written extensively on business history of financial institutions and cooperative businesses. His work incorporates GIS software and methodologies and he has incorporated this in his published work, for example his two articles in Business History both incorporate GIS derived maps of the firms under study. Other aspects of economic history McLaughlin has extensive experience managing large datasets. For example, Blum et al (2017, 2017b) in the Economic History Review utilises a database of 180k prisoners.

Proposal

Long Title	The entrepreneurs who made Glasgow: the city and its businesses 1861-1901	
Short Title	The entrepreneurs who made Glasgow	
Main/sub field of study	Business and Management Studies	

Start Date	01/01/2021
Duration	36

Referee 1	Professor Andrew Popp
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Position	Professor of History
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Referee 2	Professor Hannah Barker	
Department : Institution	School of Arts, Languages and Cultures : University of Manchester	
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Previous and Current Applications

Previous / current applications to other funding bodies

Title	Date	External funding body	Status	Reason for rejection (if known)
The people who made Glasgow.	07/05/2019	ESRC	Rejected	Ranked highly, funding decision initially delayed to discuss additional budget, priority ultimately given to others. This project has revised objectives.

Detailed Research Description

Detailed Research Description

1. Introduction and objectives

Entrepreneurial micro-businesses once dominated the streetscapes of Britain's towns and cities and were considered central to their success. We know that entrepreneurship has always been a driver of employment, skills, and innovation, as well as providing an income to diverse, and often marginalized, groups in society (Audretsch et al. 2015; Barker, 2017; Bennet et al., 2018). However, what is missing from our understanding of entrepreneurship is a study of the dynamics of business formation in a 19th century city.

This project focuses on the space, place and people of Glasgow during a critical period of its expansion. During the period 1861-1901, new professional and commercial activities transformed Glasgow and reflected its population's diversity in gender, age and nationality. We take some of the factors that are key to understanding city centres in the 21st century and apply them to Glasgow's historical data in order to build a more holistic understanding of the 19th century city. In doing so we will present a detailed study of Glasgow's spatial, economic and social development during this period.

Objectives

- 1) Examine the distribution of business within Glasgow and establish the influence of gender, nationality and age of entrepreneurs on business location
- 2) Examine the relationship between property rents and values and entrepreneurial business location
- 3) Examine the influence of business type and transport infrastructure as drivers of the suburban (re)location of entrepreneurs

We view the history of business – what businesses existed, where they were situated, and who ran them – as key to understanding how and why particular cities 'work', and as an essential part of the wider debate about the historical development and transformation of economies. The historiography of British cities of the 19th century assumes that all cities are alike (Smith et al., 2018). Our study does not. The project will offer the first comprehensive study of the particular characteristics of Glasgow in respect of the age, gender, and nationality of its entrepreneurs, the sensitivity of their businesses to rent costs, infrastructure development, and municipal expansion. It will be the first systematic analysis of a British city to create a large dataset of business and rent information. Further it will be cross-referenced to I-CeM and the British Business Census of Entrepreneurs (BBCE) to link in fine grained details on individual entrepreneurs.

2. Why Glasgow?

Cameron's (2003) review of the recent historiography and scholarship on the city of Glasgow, identified the need for a systematic study. The current historiography of Glasgow understandably concentrates on the story of the development of large-scale industrialisation and engineering companies i.e. chemical, textiles and ship-building (see Fraser, 1996; Whatley, 1997; Oakley, 1947; Campbell, 1965; Slaven, 1975; Payne, 1980), industrial relations and the emergence of political Labour (Cameron 2003). However, small manufacturing businesses, professional services, retail units, and associated residential premises 'above the shop' represent the entrepreneurial foundation of the complex economic and social change occurring in Glasgow at this time.

Glasgow was arguably the second city of the British Empire in this period (Mackenzie 1999) and offers an ideal site for the examination of how business development shapes city development. By the 1850s Glasgow had attracted the label of 'the great commercial emporium of Scotland' as the mass consumerism revolution began (Schmiechen, in Fraser and Maver, 1996). As a city, Glasgow was a migration destination as people moved to take advantage of positive employment opportunities (Withers, in Fraser and Maver, 1996), and exerted a greater pull on local population within Scotland than London did in England (Briggs, 1993). It was a youthful city that appealed to young adults who were not yet constrained by family commitments that limit labour movement (Williamson 1990, Dennis 1984). Although many moved for the unskilled job opportunities in the growing industrial sector, migration also influenced the

streetscape. From Irish grocers and warehouse men, Italian owned ice cream shops, to the absorption of many English migrants (see Lindsay, 1989, Edwards, 2016, and Watson, 2003) newcomers were integral to the growth of businesses and services within the city.

Glasgow benefited from improved transportation technologies and infrastructure in this period. By the 1880s the city had four railway termini and good transportation links to the rest of Scotland and beyond. In 1870 the Glasgow Tramway and Omnibus Co. started to lay a tram network, and the city became one of the first to take up this new form of urban transport (Simpson, 1972). At the end of the century, Glasgow had developed an underground system; connecting the suburbs in the west to the city centre. As a result, the commercial fulcrum of the city shifted westwards – away from the medieval High Street and market cross, and towards the new wide thoroughfares of the Georgian development – as did the residential patterns of the emerging proprietor class.

By analysing demographic and residential data alongside business data this project will offer an important insight into how Glasgow's business environment and economic base was shaped in the 19th century.

3. Research Context

Checkland (1964) noted that business history is essentially a concomitant of urban history, due to the fact that businesses both form and sustain the city. And that economic theory must come to terms with 'observed experience in the great cities that comprise [the economy]' (1964, 36) in respect of the businesses that could be seen on their streets. He also called for a combined economic (establishing the economic base of the city), spatial (studying the elements of the urban economy in geographical relationship to each other), and social (the relationship of the social to the economic) analysis, that would inform policy decisions. However, more than 50 years later, we are still without a combined economic, spatial and social survey of entrepreneurship with respect to a major British city in the 19th century.

Previous quantitative studies of cities have largely been restricted to population growth and urbanisation, with the primary research question being about why some cities grow in this period whilst others stay small. By looking at city development as a function of growth, there has been less interest in differentiating the functions and characteristics of individual cities (Smith et al., 2018). However, the expanding 19th century city reflected a new kind of society that is not captured in simple measures of population growth. The economy evolved and offered new patterns of consumption. New businesses and services came into being and, in turn, contributed to a change in city centre activity, with small businesses dominating the streetscape of this urban transformation (Barker, 2017). At the mid-point of the century, further changes were fuelled by internal migration as individuals left rural communities for jobs in their nearest town. Large industrialised areas such as London, Liverpool, Manchester and Glasgow exerted a strong pull on people who were in search of work (Baines, in Floud and McCloskey Vol.2 1994). This domestic movement was accompanied by immigration from overseas as men and women from Ireland and Eastern Europe came to Britain in growing numbers from the mid-1840s onwards (Baines, in Floud and McCloskey Vol.2 1994).

As people moved to the city, their ability to follow a self-sufficient lifestyle diminished; this coupled with an increase in the number of people being paid wages in cash stimulated a growing retail sector (Fowler, 1998). Barker (2017) describes the streets of Manchester in the 19th century – a city that was most likely similar to Glasgow in this period - as an eclectic mix of small manufacturers, shopkeepers, and service providers, pointing out that the people who ran these businesses constituted a significant proportion of the urban population. The presence of women business owners in this mix has been established by Aston (2016) and Barker (2017), by examining town directories, wills, and legal records. Their research – together with similar studies in Australasia (e.g. Bishop, 2015) – use individual women owned business case studies to illustrate wider points about gender and business in the 19th century and emphasises the need for a revised, and large scale, history of entrepreneurship.

The development of transportation networks undoubtedly influenced the definition of city living as residential patterns, the interaction between social classes, and the distribution of retail changed. In the early 19th century, the city centre was inhabited by day and night by individuals

who both lived and worked there (Barker, 2017). However, transportation encouraged suburbanisation and the separation of residence and workplace beyond walking distance (Dennis, 1984). For those with the means, transportation provided an opportunity to escape the crowded living conditions that were created by the influx of workers into industrialised cities.

Our research directly responds to Checkland's call for a combined economic, spatial and social survey of a major British city in respect of entrepreneurship in the 19th century; it does so by exploiting the datasets, open source software, and data-handling technologies that now exist to engage with trade directory, rent, and census data on a large scale.

4. Research Questions

How did migration, gender and demographic change drive the city's entrepreneurial activity?

At the mid-point of the 19th century Scotland was experiencing great demographic change. The majority of the academic work that investigates labour movement in the 19th century (for example, Williamson 1990) emphasises the unskilled nature of the labour force. Our analysis will look beyond the familiar story of the unskilled to examine what entrepreneurial migrants brought to the city, and how gender and age influenced business development.

How do changes in property use and value create opportunities and limits for business development?

The development of the entrepreneurial offering within the city can only be understood through mapping changes in business mix and density. The growth in transport networks, for example, modified patterns of land use and influenced the value of sites (See Dennis, 1984; Dawson, 1988). Our analysis of how property rents and value influenced location choice decisions will allow for a better understanding of business mix and the dynamics of placement of retail, leisure, and service businesses in the city.

How did entrepreneurs' relationships with their place of work change as the city expanded?

Small manufacturing businesses, professional services, retail units, and associated residential premises 'above the shop' represent the entrepreneurial foundation of the complex economic and social change occurring in Glasgow at this time. By analysing business, residential and demographic data together we can build an understanding of how people's relationship with their physical place of work changed including antecedents of the phenomena of 'working from home'.

5. Methodology

We will collect large scale data from four robust sources i.e. valuation rolls, town directories, ordnance survey maps, and censuses. This approach will allow us to systematically identify business premises, 'work from home' entrepreneurs, rental costs, spatial layout of cities, and demographic details of individuals over time and space.

5.1 Data Sources, Extraction and Linkage

Valuation roll records allow us to categorise business premises by usage and provide an annual rental value. Whilst we might be able to capture samples of small business activity from single subject business histories, or via the painstaking work of tracing them through newspaper advertisements, court cases, and wills, a spatial understanding of entrepreneurial businesses requires a robust, accessible, and consistent source of business location data. Valuation Rolls provide this robust and accessible data, and also provide rent costs for each individual business. Information from Valuation Rolls will have to be extracted from the original returns.

¹ To improve efficiency of data access and entry The National Records of Scotland have agreed rental of digital copies of valuation rolls. This will eliminate costs associated with travel to archives for the collection of business and rent data The Lands Valuation (Scotland) Act 1854 established the modern system of assessment. Annual rolls were to be compiled, containing the names of property owners, occupiers and

In order to understand the relationship between a proprietor and their business we need a source of historical data that provides a comprehensive spatial record of business activity that can be linked back to the residential data from the census. Trade directories allow us to do this, as they identify the 'home' addresses of business owners. Trade directories have been digitised and are available through the National Library of Scotland website. This will save significant time on data input. Nevertheless, the trade directory material needs significant manipulation and categorisation to allow for robust cross-referencing across sources.

The Integrated Census Microdata (I-CeM) database has been used recently to compile a macro-level record of UK individuals who self-identified as entrepreneurial, either as employers or self-employed. This dataset has been cleaned and improved as part of the British Business Census of Entrepreneurs (BBCE) (see Bennett et al., 2018 for further detail). The BBCE dataset and the identifiers which link individual entrepreneurs to the ICEM data allow us to identify the residence of individuals. However, it is only when this is cross referenced with the trade directory data that we can link a person to a business location.3 The full I-CeM dataset has restricted access and can only be accessed via a special licence provided by UK Data Services (see https://icem.data-archive.ac.uk/#step1). Our application for access has been review and approved.

As part of a proof of concept exercise we have geocoded addresses from the 1861-1862 directory. We imported these points to a map of Glasgow from the same period (historic maps of Glasgow are available through Digimap (http://digimap.edina.ac.uk/historic)) using ArcMap (&QGIS) and have been able to overlay 'old' Glasgow on a modern file.4

Pilot Study - We have verified the coverage and quality of the various data sources, and estimated the time needed to analyse the data. We have examined all four sources over time to ensure they contain the necessary data. We have also manually cross-referenced a sample of individuals for 1861, based on our estimate we can link individuals across sources for over 70% of the sample.

5.2 Period of study and data reliability

Our analysis will focus on twenty yearly intervals between 1861 and 1901 to allow a systematic understand of the pace of change over time. The study covers a significant proportion of the Victorian era, a definable historical period and one which is marked by accelerating population, industrialisation, and the development of a recognisable urban economy.

Valuation rolls do not exist prior to 1855, so we are limited to sample points after this that allow us to systematically establish the location and rents of all Glasgow business. 1861 is the earliest year of reliable census data that provides the age of entrepreneurs and specifics on their birthplace. Finally, it is only from mid-century that the quality and consistency of information in the trade directories allows us to build the connections between businesses and entrepreneur's residence, and therefore connect valuation roll information with census data.

5.3 Data Analysis

By linking an individual and their characteristics to a business(es) we can create an enriched understanding of entrepreneurial activity from an economic and social perspective. Further, they will also help us identify people listing business activity at addresses that would not have been categorised as a business premises in the valuation roll. The Census (and I-

tenants. The act introduced the concept of "annual value". If the property was let at an economic rent, this would be accepted as the annual value.

- ² The Post Office compiled trade directories for Edinburgh (from 1805) and Glasgow (from 1828). Information on individual businesses and addresses was collected by delivery staff, with compilation and indexation handled by senior staff. Standard listings were free of charge; extended entries and advertisements attracted a charge.
- ³ This approach stops potential overestimation of business numbers see Alexander (1970) for information on overestimation of retail provision using census data.
- ⁴ This includes adjusting for streets that have changed name no longer exist. We use historic maps of Glasgow from Digimap (http://digimap.edina.ac.uk/historic) to identify streets that have become obsolete and streets that have changed names.

CeM/BBCE databases) records combined with 'home' address information from Trade Directories allow us to analyse information on gender, age and nationality of our entrepreneurs.

Our analysis will also include spatial modelling to help us understand the relationship between businesses, and proprietors and their business. We will look at various spatial models of locational choice i.e. where firms are located and whether the decision to locate appears to be influenced by relative distance to other trades. We will use GIS software (ArcGIS, QGIS, GeoDa) and statistical (STATA, R) software to analyse our data. We will incorporate the built environment into our analysis through an analysis of the developing infrastructure (railway and tram lines) by creating polygons and polylines from 19th century maps for subsequent analysis.

Our analytic approach will enable us to describe the environment that businesses operated. We will also be to answer specific questions using regression analysis such as the relationship between infrastructure and rents using hedonic regressions (where we explain rent or property price as a function of attributes that we geocode) and analyse whether certain types of businesses tended to cluster in regions of the city and if there were spatial externalities associated with this.

6. Project Management

The data collection will primarily be the responsibility of the research assistant They will collect and enter the data into a Microsoft Excel / MySQL database. The data collection will be overseen by Professor Acheson, who has extensive experience creating and managing large complex datasets and databases. Professor Acheson and Dr Mclaughlin will provide in-depth training for the research assistant in data collection and data sources. Dr McLaughlin will be responsible for overseeing the data management aspects of the project and provide GIS expertise for the spatial analysis component. Dr Perriton will provide input and expertise in relation to the social history aspects helping the RA write the app to appeal to non-academic audiences. All members of the research team will be involved in writing up the academic outputs from the project.

Timeline of activity

	Year 1	Year 2	Year 3
Extract data from Valuation rolls / Trade directories			
Cross reference with ICEM / BBE Data			
Gather data on Glasgow Infrastructure			
Geocode residential information			
Conduct empirical analysis			
Write up academic papers			
Build the app			
Feedback and dissemination at conferences			

7. Outputs

The project will generate a number of academic publications, but we have identified three initial papers that we see as important to establish our approach to historical entrepreneurship. The first, targeted at the Journal of Economic Geography, will examine business diversity in Glasgow and how infrastructure and rents impacted on the entrepreneurial activity. The second, targeted at the Economic History Review, will analyse migration and entrepreneurship. The third, targeted at Enterprise and Society, will examine entrepreneur's relationship with their work, including the separation of working and residential life.

We will also create a heritage walking trail accessed via a smartphone app. Selecting a dominant theme that emerges from the research such as 'women and business', or 'migration and business', we will work in conjunction with Glasgow City Council to make our work accessible to a broader audience.

References



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Lay Summary

Entrepreneurs are considered the engine of growth within an economy. But despite the literature that asserts that historic growth in cities was entrepreneurship-led, we lack sufficient research in city specific contexts and mechanisms. We view the history of business i.e. what businesses existed, their location, and who ran them, as an essential contribution to the debate about the historical transformation of economies. Focusing on Glasgow, we will take factors that are key to understanding economic development today and apply them to Glasgow's historical data to build a more holistic understanding of how migration, gender, age, and infrastructure shaped entrepreneurial activity.

Context

Entrepreneurial micro-businesses once dominated the streetscapes of Britain's towns and cities and were considered central to their success. We know that entrepreneurship has always been a driver of employment, skills, and innovation, as well as providing an income to diverse, and often marginalized, groups in society. However, what is missing from our understanding of entrepreneurship is a study of the dynamics of business formation in a 19th-century city.

This project focuses on the space, place and people of Glasgow during a critical period of its expansion. During the period 1861-1901, new professional and commercial activities transformed Glasgow and reflected its population's diversity in gender, age and nationality. We take some of the factors that are key to understanding city centres in the 21st century and apply them to Glasgow's historical data in order to build a more holistic understanding of the 19th century city. In doing so we will present a detailed study of Glasgow's spatial, economic and social development during this period.

Objectives

- 1) Examine the distribution of business within Glasgow and establish the influence of gender, nationality and age of entrepreneurs on business location
- 2) Examine the relationship between property rents and values and entrepreneurial business location
- 3) Examine the influence of business type and transport infrastructure as drivers of the suburban (re)location of entrepreneurs.

Significance and originality

The need for a bridge between economic and business history has been recognised in the past. Checkland (1964), noted that business history is essentially a concomitant of urban history, due to the fact that businesses both form and sustain the city. Glasgow was and is the largest city in Scotland, a major urban centre, the 'capital' of industrial Scotland, and a city with a complex social structure that embraced all classes (Cameron, 2003; Edwards, 2016; Fraser 1996, Oakley, 1947; Schmiechen, 1996; Withers, 1996). As a result, Glasgow offers an ideal opportunity to examine the relationship between entrepreneurial business development and city development.

The recently released British Business Census of Entrepreneurs (BBCE) defines entrepreneurs as proprietors responsible for a business at any given time. This definition encompasses – necessarily given the methodology used to create the database – sole proprietors including the self-employed working on own account, partnership and joint enterprises, and directors of incorporated firms. The definition is deliberately broad-ranging, with Bennett et al. (2020) calling for subsequent finer-grained analysis of developments over 1851-1911, including different types of families and households, migration, and the geography of specific cities. Our study answers this call and follows Wadhwani and Lubinski (2017) in seeing entrepreneurial history as collective and cumulative, built on the actions and decisions of multiple actors in a specific place and time via distributed agency. We look to the decision making of multiple entrepreneurial actors with respect to their business premises, including those for whom their home was also their business premises.

Our project will offer the first comprehensive study of a major British city in the 19th century in respect of the age, gender, and nationality of its entrepreneurs, and the sensitivity of business location to rent costs, infrastructure development, and municipal expansion.

Methodology

We will collect large scale data from three robust sources i.e. valuation rolls, town directories, and censuses. This approach will allow us to systematically identify business premises, 'work from home' entrepreneurs, rental costs and demographic details of individuals. More specifically: valuation roll records allow us categorise business premises by usage and provide an annual rental value. Trade directories allow us to identify i) people listing business activity at addresses that would not have been categorised as a business premises in the valuation roll and ii) 'home' addresses of business owners. The Census (and I-CeM / BBCE databases) records combined with 'home' address information allow us to collect information on gender, age and nationality of our entrepreneurs. In addition, our analysis will involve the use of spatial models to assess business positioning in the context of other businesses, rental costs and the developing transportation networks into and around the city.

We have verified the coverage and quality of the various data sources, and estimated the time needed to analyse the data, through a pilot study. We have examined all three sources over time to ensure they contain the necessary data and geocoded addresses from the 1861-1862 directory. We imported these points to a map of Glasgow from the same period using ArcMap (&QGIS) and have been able to overlay 'old' Glasgow on a modern file to create an understanding of the built environment in this period. We have also manually cross-referenced a sample of individuals for 1861, based on our estimate we can link individuals across sources for over 70% of the sample.

Why the Leverhulme Trust

"The entrepreneurs who made Glasgow" is an interdisciplinary project - linking the concerns of economic history, business history, entrepreneurship, gender studies, and retail studies. The project draws together different fields and data sources and fits well with the Trust's commitment to support projects that cross academic boundaries. The published work of the project team has focused on both large and small business ownership in the UK prior to 1900, in addition to the levers of business finance, and the social history of small savers.

We now wish to use our separate areas of expertise to establish ways in which business history, which tends to have a micro focus, can inform our macro-economic understanding. By drawing out the importance of the economic (establishing the entrepreneurial foundations of the city), spatial (studying business location and infrastructure in geographical relationship to each other), and social (the entrepreneur in social context of race, age, and gender) we can create a better understanding of the important drivers of development in a 19th century city. This project is ambitious and original and reflects the aims of the Trust.

Staff Schedule - Principal Applicant

Total time (hours per week) to be spent on the project

7

Distribution of work

- a) Research Activity
- b) Authorship
- c) Publication

Prof. Acheson is an expert on the creation of databases from large-scale primary data collections and has a comprehensive understanding of its challenges. On that basis, he will train the RA in the appropriate methods and oversee all aspects of data collection. Furthermore, he will provide career and research mentorship for the research assistant.

Authorship: Prof. Acheson will be a co-author on all outputs and involved in the analysis of results, writing up and dissemination of each paper. He will be a named co-author on all publications from the project, which will be submitted to peer-review journals supporting open access.

Recent and relevant publications

Refereed articles

"Independent Women: Investing in British Railways, 1870-1922" (with Gareth Campbell, Aine Gallagher and John Turner), Economic History Review, Forthcoming.

"Share Trading Activity and the Rise of the Rentier in the UK before 1920" (with Christopher Coyle, David Jordan and John Turner), *Business History*, 2020, vol. 62, lss. 6, pp. 982-1001.

"Private Contracting, Law and Finance" (with Gareth Campbell and John Turner), Review of Financial Studies, 2019, vol. 32, pp. 4156-4195.

"Who Financed the Expansion of the Equity Market?: Shareholder Clienteles in Victorian Britain" (with Gareth Campbell and John Turner), *Business History*, 2017, vol. 59, pp.607-37.

"Corporate Ownership, Control and Firm Performance in Victorian Britain" (with Gareth Campbell, John Turner and Nadia Vanteeva), *Journal of Economic History*, 2016, vol. 76, pp.1-40.

"Happy Hour Followed by Hangover: Financing the UK Brewery Industry, 1880-1913" (with Christopher Coyle and John Turner), *Business History*, 2016 vol.58, pp. 725-751.

"Active Controllers or Wealthy Rentiers: Large Shareholders in Victorian Britain" (with Gareth Campbell and John Turner), *Business History Review*, 2015, vol. 89, pp. 661-92.

"Corporate Ownership and Control in Victorian Britain" (with Gareth Campbell, John Turner and Nadia Vanteeva), *Economic History Review*, 2015, vol. 68, pp.911-36.

"The Character and Denomination of Shares in the Victorian Equity Market" (with John Turner and Qing Ye), *Economic History Review*, 2012, vol. 65, pp. 862-886.

"Organisational Flexibility and Corporate Governance in a Civil-Law Regime: Scottish Provincial Banking During the Industrial Revolution" (with Charles Hickson and John Turner), *Business History*, 2011, vol. 53, pp.505-529.

"Investor Behaviour in a Nascent Capital Market: Scottish Bank Shareholders in the Nineteenth Century" (with John Turner), *Economic History Review*, 2011, vol. 64, pp. 188-213.

"Does Limited Liability Matter? Evidence From Nineteenth-century British Banking" (with Charles Hickson and John Turner), Review of Law and Economics, 2010, vol. 6: Iss. 2, Article 6.

"Rule Britannial: British Stock Market Returns, 1825-1870" (with Charles Hickson, John Turner and Qing Ye), *Journal of Economic History*, 2009, vol. 69, pp.1106-1136.

"The Death Blow to Unlimited Liability in Victorian Britain: The City of Glasgow Failure", (with John Turner), *Explorations in Economic History*, 2008, vol. 45, pp. 235-253.

Chapter in book

"Shareholder Liability, Risk Aversion, and Investment Returns in Nineteenth-Century British Banking," (with John Turner) in *Men, Women and Money*, Green, D., Maltby, J., Owens, A. and Rutterford, J. (Eds.) Oxford University Press, 2011.

CV

Degree/Qualifications

From	То	Degree	Subject	Institution
09/1998	06/2001	BSc	Economics and Management	Queen's University Belfast
09/2001	08/2002	MSc	Finance	Queen's University Belfast

Doctoral Degrees

From	То	Degree	Subject	Institution
09/2002	04/2006	PhD	Law, Finance and Liability Regimes: Essays in Scottish and Irish Banking History	Queen's University Belfast

Former Employment

From	То	Position	Organisation
1	1.0	1. 00	0.94

Former Employment

office Employment					
From	To Position		Organisation		
08/2020	-	Professor of Finance	University of Strathclyde		
02/2013	11/2019	Professor of Finance	University of Stirling		
10/2012	01/2013	Reader in Finance	University of Ulster		
01/2011	09/2012	Senior Lecturer in Finance	University of Ulster		
01/2007	01/2011	Lecturer in Finance	University of Ulster		
01/2006	12/2006	Research Fellow	Queen's University Belfast		

Staff Schedule

Co-Applicants

Co-Applicant 1 - Dr Linda Perriton

Distribution of work

- a) Research Activity
- b) Authorship
- c) Publication

Dr Perriton will provide input and expertise in relation to the social history aspects of the project. She will also support the RA in writing the app content to appeal to non-academic audiences and lead the analysis of the demographics of the entrepreneurs.

Authorship: Dr Perriton will be a co-author on all outputs and involved in the analysis of results, writing up and dissemination of each paper. Dr Perriton will be a named co-author on all the publications from the project, which will be submitted to peer-review journals supporting open access.

Recent and relevant publications

Refereed articles

"For all intents and purposes: Depositor behaviour and strategy in a London savings bank" (with Stuart Henderson), *Enterprise and Society*, forthcoming.

"Getting together, living together, thinking together: Management development at Tata Sons 1940–1960" (with Swapnesh Masrani), *Business History*, 2018, [online first] pp.1-19.

"The parochial realm, social enterprise and gender: the work of Catharine Cappe and Faith Gray and others in York, 1780–1820", 2017, *Business History*, 59 (2), pp. 202-230.

"Working-Class Households and Savings in England, 1850–1880" (with Josephine Maltby), 2015, *Enterprise and Society*, 16(2), pp.413-445.

"Savings banks in England and Wales in the nineteenth century: a new insight into saving and spending" (with Josephine Maltby), 2012, *Business Archives*, No. 105 (November), pp. 47-64

"The Education of Women for Citizenship: the National Federation of Women's Institutes and the British Federation of Business and Professional Women 1930-1959", 2009, *Gender and Education*, 21 (1), pp. 81-95

"Forgotten Feminists: the Federation of British Professional and Business Women, 1933-1969", 2007, *Women's History Review*, 16 (1), pp. 79-97.

Other

"Taking Account of the Details – A Micro Perspective on the Function of Savings Banks in Early-Nineteenth Century England" (with Stuart Henderson), 2018, Paper presented to the European Association of Banking History, Turin, June 15th-16th

"Depositor trends in the Limehouse Savings Bank, London, 1830-1876", 2012, European Savings Bank

Group. Academic prize-winning paper published online at: www.esbg.eu/uploadedFiles/perriton.pdf

Degree/Qualifications

From

Doctoral Degrees

From	То	Degree	Subject	Institution
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Former Employment

From	То	Position	Organisation
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Co-Applicant 2 - Dr Eoin Mclaughlin

Distribution of work

- a) Research Activity
- b) Authorship
- c) Publication

Co-I Dr McLaughlin has significant expertise in data analysis and geocoding. He will supervise the creation the geo-material and conduct the majority of empirical tests needed for the academic analysis.

Authorship: Dr McLaughlin will be a co-author on all outputs and involved in the analysis of results, writing up and dissemination of each paper. Dr McLaughlin will be a named co-author on all the publications from the project, which will be submitted to peer-review journals supporting open access.

Recent and relevant publications

Refereed articles

"Competition between organisational forms in Danish and Irish dairying around the turn of the twentieth century" (with Paul Sharp), *Business History*, forthcoming.

"The Circular Economy: Swings and Roundabouts?" (with Neal Millar and Tobias Borger), *Ecological Economics*, 2019, volume 158, pp. 11-19.

"Genuine Savings as a Test of New Zealand Weak Sustainability" (with Mubashir Qasim and Les Oxley, L. and McLaughlin, E). *Environment, Development and Sustainability*, 2018, doi:10.1007/s10668-018-0185-0

"Accounting for Sustainable Development over the long-run: Lessons from Germany" (with Matthias Blum, and Nick Hanley), *German Economic Review*, 2017, https://doi.org/10.1111/geer.12148

"Australia: a Land of Missed Opportunities?" (with David Greasley, Nick Hanley and Les Oxley), *Environment and Development Economics*. 22(Sl6), pp. 674-698.

"Women of an uncertain age: quantifying human capital accumulation in rural Ireland in the nineteenth century" (Matthias Blum, Chris Colvin, and Laura McAtackney), *Economic History Review*, 2017 70(1), pp. 187-223.

"Sovereign debt guarantees and default: Lessons from the UK and Ireland, 1920-1938" (with Nathan Foley-Fisher), *European Economic Review*, 2016, Volume 87, pp. 272-286.

"Capitalising on the Irish Land Question: Land Reform and State Banking in Ireland, 1891-1938" (with Nathan Foley-Fisher), *Financial History Review*, 2016, 23(1), pp. 71-10.

"Contracts and Cooperation: The Relative Failure of the Irish Dairy Industry in the Late Nineteenth Century Reconsidered" (with Ingrid Henriksen and Paul Sharp) *European Review of Economic History*, 19(4), pp. 412-431.

"Competing forms of cooperation? Land League, Land War and Co-operation in Ireland, 1879-1921", *Agricultural History Review*, 2015, 63(1), pp. 81-112.

"Historical wealth accounts for Britain: progress and puzzles in measuring the sustainability of economic growth" (with David Greasley, Nick Hanley, Jan Kunnas, Les Oxley, and Paul Warde), *Oxford Review of Economic Policy*, 2014, 30(1), pp. 44-69.

"Raiffeisenism abroad: why did German cooperative banking fail in Ireland but prosper in the Netherlands?" (with Chris Colvin), *Economic History Review*, 2014, 67(2), pp. 492-516.

"Profligacy in the Pursuit of Thrift": Savings banks in Ireland, 1817-1914", *Business History*, 2014, 56(4), pp. 569-591.

Chapters in books

"Environment and Natural Resources", in An *Economists Guide to Economic History*, Matthias Blum and Christopher L. Colvin (Eds.), Palgrave, 2018.

"Economic Impact of the Irish Revolution," in *Atlas of the Irish Revolution*, John Crowley, Donal Ó Drisceoil and Mike Murphy (Eds.) Cork University Press, 2017.

"A Sustainable Century? Genuine Savings in developing and developed countries, 1900-2000" (Matthias Blum and Cristian Ducoing), in *National Wealth: What is missing, why it matters*, Kirk Hamilton and Cameron Hepburn (eds.), Oxford University Press, 2017.

Degree/Qualifications

Degree/G	ualification	<u> </u>				
From	То	Degree		Subject		Institution
Doctoral	Degrees					
From	То	Degree		Subject		Institution
Former E	mployment					
From	То		Position		Organisation	

Research Assistants

Research Assistant 1

Distribution of work

- a) Research Activity
- b) Authorship
- c) Publication

The Research Assistant will extract data from the sources noted in the full proposal, geocode the business and residential addresses of the business owners, and link the data across the various sources. In the final 12 months they will work on the content development for the App and the Academic outputs.

Authorship: The RA will be a co-author on all three outputs and involved in the analysis of results, writing up and dissemination of each paper. The RA will be a named co-author on all the publications from the project, which will be submitted to peer-review journals supporting open access.

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Steering Committee/Advisors

Grant	Re	port
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Finance

Staff Type

Research assistant

Percentage of time spent over the entire project (not per year)

100

	Year 1	Year 2	Year 3	Total
Scale Point	29	30	31	
Basic Salary	£32,817	£33,797	£34,804	£101,418
National Insurance	£3,316	£3,451	£3,590	£10,357
Superannuation	£6,924	£7,131	£7,344	£21,399
Total	£43,057	£44,379	£45,738	£133,174

Conference Attendance

Attendance at 3 conferences to present the 3 papers. (1 US, 1 European and 1 UK)

Year 1	Year 2	Year 3	Total
0	£2,000	£2,000	£4,000

Other Research Expenses

Hire of Valuation Roll data from National Archives of Scotland (for 3 years of project)

Year 1	Year 2	Year 3	Total
£1,200	0	0	£1,200

Dissemination

Imaging and copyright fees associated with APP development

Year 1	Year 2	Year 3	Total
0	0	£3,000	£3,000

Travel

CO-I travel (cork to Glasgow) in year 1 and 2, for face to face meetings.

Year 1	Year 2	Year 3	Total
£250	£250	0	£500

Budget Summary

Totals				
	Year 1 (£)	Year 2 (£)	Year 3 (£)	Total (£)

Totals				
	Year 1 (£)	Year 2 (£)	Year 3 (£)	Total (£)
Salaries	43,057	44,379	45,738	133,174
Associated Costs	1,450	2,250	5,000	8,700
Total	44,507	46,629	50,738	141,874

Institutional Approver

I confirm on behalf of the Principal Applicant's institution that:

- we agree with the budget as laid out in this application;
- we have fully read and approve of this application and
- we understand that agreement to the Trust's terms and conditions will be requested following the offer of a grant.

Name	
Position	
Email	