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American Literary Output from early 19th to Late 20th Century: Age, Gender and Spatial Dimensions

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Abstract. This paper examines the evolution of US literary output in terms of four factors relating to its main authors: their geographic location and migration patterns over almost two centuries, the links between their literary output and age, variations by genre and gender, and motivations for location, especially in New York. For this, we have constructed a yearly data set on the 481 US writers listed in *Encyclopedia Britannica* born between 1800 to 1949. The dominance of New England in the earlier period and thereafter New York as a location for writers is highlighted, reflecting major in-movement of writers to the city in certain periods. It is also shown that migration is strongly linked to age and that such migration resulted in authors in most cases being located much nearer to other authors. It is also the case that there is a marked jump in literary output at certain ages, the same ages as when most movement of authors takes place. The decline in literary output with advancing age is not marked in the more recent subperiods. No clear impact on the level of literary output is detected from living in New York.

Keywords: literary output, location, migration, age, gender: **JEL Codes:** J4, N9, R1, Z1

Primary Disciplines: economic history, cultural economics

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1 Introduction

If scholars or critics are fully to understand works of literary art, they must understand the commercial factors that influenced the composition and publication of these works... Critics have the luxury of interpreting the writings of earlier generations solely as aesthetic entities, but the authors who produced these writings had to do so with both artistic and practical motives in mind. They had to create within the limitations and strictures imposed on them by the markets to which they sold their work. (West, 1990, p 1, 4)

The above implies that not only are the issues looked at in this paper of interest in themselves, especially in terms of the modern debate about creative clusters (see Andersson et al, 2014, Kuld and O'Hagan, 2019, and Wojan et al, 2007) but may also inform in some small way a better understanding of the artistic dimensions to the output of US writers. The paper examines the evolution of US literary output in terms of four factors relating to almost five hundred of its main authors born between 1800 and 1949: their geographic location and migration patterns, the links between their literary output and age, variations by genre and gender, and motivations for location, especially in New York. It adds to several recent similar studies in this regard; those on visual artists (O'Hagan and Kelly, 2005, Kelly and O'Hagan, 2007, and Hellmanzik, 2010 and 2013), composers (Borowiecki (2012 and 2013), philosophers (O'Hagan and Walsh, 2016) and authors (Kuld and O'Hagan, 2019, and Mitchell, 2019). Kuld and O'Hagan (2019), examines German authors, primarily in terms of locational factors, whereas this paper relates not only to a very different group, namely US authors, but has a sample size more than three times that for the German study, with much more detailed information regarding genre, and with a sizeable share of female authors, in marked contrast to the German situation (which though covered only the 18th and 19th centuries).

As outlined in Kuld and O'Hagan (2019) an interest in the location and clustering of creative workers goes back a long time, with the first economic analysis as such dating perhaps to Marshall (1890). The more recent literature on clustering as they point out relates more to creative industries, not creative individuals, with some exceptions such as those listed above.

For this study, we have constructed a yearly data set on the 483 US writers listed in *Encyclopedia Britannica* born between 1800 to 1949. The US as a nation changed dramatically in the 19th and early 20th century, especially in terms of physical boundaries and means of transport. This impacted not only the nature of US literature over the period but also the four factors of interest here in relation to US authors. Section 2 provides a broad coverage of this background, concentrating mainly on the most well-known authors in terms of their geographic location, involvement in publishing and sources of income. This adds not only 'faces and

colour' to the later statistical analysis but also provides an insight into what patterns to look for in this analysis. The section also outlines briefly the changes in transport, publishing and population size alluded to above.

Section 3 sets out the arguments/theory for connections between age and literary output and migration, and between literary output and geographic location. Section 4 covers the main contributions of the paper, the diagrammatic and statistical analysis of the available data set. First, the geographic spread and movement of US writers over time and by age are examined. Second, the links between age and creative output are explored in some detail, as well as some initial analysis of the links between literary output and location. Section 5 concludes the paper

2 Historical Context: Literary and Economic

Like other national literatures, American literature was shaped by the history of the country that produced it. For almost a century and a half, America was merely a group of colonies scattered along the eastern seaboard of the North American continent. After a successful rebellion against the motherland, America became the United States, a nation. By the end of the 19th century this nation extended southward to the Gulf of Mexico, northward to the 49th parallel, and westward to the Pacific.²

As the above indicates, the US underwent dramatic change in the period under review, especially during the 19th century, in terms of the geographic area to which it related. From being concentrated along the East Coast its reach and spread covered by the end of that century most of what we know today as the US. This will be reflected in the discussion to follow, which concentrates particularly on the geographic location and financial position of and regional influences on, some of the best-known US writers. This will provide some important context for the statistical sections which follow later.

There were also major technological and economic changes in 19th century US, not least the arrival of the railroad and the revolution in the publishing industry, both of which would impact greatly on the location of markets and opportunities for writers. These will be discussed following the overview of developments in US literature, using the time periods suggested by *Encyclopaedia Britannica* on American literature.

Early to mid-19th Century

After the American Revolution and especially after the War of 1812, the emphasis in American writing was on native literature and as a result, Edgar Allan Poe (1809-1849) and others initiated what is seen

² <https://www.britannica.com/art/American-literature>

as a great period of literary development.³ This marks the first period under study here, as writers born in 1800 would only have had serious writings from around twenty years later, namely 1820. What is of interest is the economic circumstances which each of these writers experienced.

Poe began to sell short stories to magazines, and, in 1835, he became the editor of the *Southern Literary Messenger* with an acute awareness of reader tastes, reflected in soaring sales figures. Earlier famous writers had, also, careers in journalism, including Washington Irving (1783-1859)⁴ and William Cullen Bryant (1794-1878)⁵ and besides came from wealthy backgrounds.

Nathaniel Hawthorne (1804-1864), his masterpiece being *The Scarlet Letter*, was a New Englander like so many from this time, he came also from a wealthy background and held various jobs, including contributing to magazines. *The Scarlet Letter* was one of the first mass-produced novels in America and became an instant best seller, with over 2,500 copies sold in the first two weeks.⁶ Hawthorne's literature had a marked effect on Herman Melville (1819-1891), another important author during this time, notable for his book *Moby-Dick*. He had a difficult life and sought income through various jobs, including going to sea on a whaling ship and was a regular contributor of reviews and other pieces to a literary journal.⁷ He also hailed from New England and surrounding areas, the centre of literary writing. Walt Whitman (1819-1892) and Emily Dickinson (1830-1886), two of America's most important poets, also date from this period and from New England. Whitman was a working man, a traveler and served as a nurse during the Civil War and later took up government jobs. Dickinson in contrast was reclusive, rarely travelled, was very well educated and came from a wealthy background.

Thus, during this period most writers appear to have come from wealthy backgrounds, were able to earn money through contributions to magazines and journals, could get employment in government agencies, lived in or close to New England and had close ties to Europe, especially the 'mother' country, England. This was in marked contrast to the situation in Germany at the time, where even the most famous writers there were utterly dependent on the ruling classes, secular and ecclesiastical, for employment and income, with writing for money viewed as immoral (Kuld and O'Hagan, 2019).

Post-Civil War: 1865 to 1914

The Civil War [1861-1865] was a turning point in U.S. history and a beginning of new ways of living. Industry became increasingly important, factories rose and cities grew, and agrarian preeminence declined. The frontier, which before had always been an important factor in the

³ <https://www.poets.org/poetsorg/poet/edgar-allan-poe>

⁴ <https://www.biography.com/people/washington-irving-9350087> He like many others came from a wealthy background and studied law for a while. His best-known works internationally were *Rip Van Winkle* and *The Legend of Sleepy Hollow*.

⁵ Like so many others also of the time, he came from the North-East coast and was a long-time editor of the *New York Evening Post*, which provided him with a good income.

⁶ <https://americanliterature.com/author/nathaniel-hawthorne>

⁷ <https://www.britannica.com/biography/Herman-Melville>

*economic scheme, moved steadily westward and, toward the end of the 19th century, vanished. The rise of modern America was accompanied, naturally, by important mutations in literature.*⁸

Mark Twain (the pen name used by Samuel Clemens ,1835-1910) was the first major American writer to be born away from the East Coast, in Missouri. His writings reflected this, especially his classics, *Adventures of Tom Sawyer* and *Adventures of Huckleberry Finn*. He changed the way Americans used language when writing: characters speaking like real people with distinctive local dialects and regional accents. This set the pattern for realism or naturalism in American writing, with many other writers following suit.

He started his career as a typesetter at a newspaper, worked as a printer, a riverboat pilot, and then turned to gold mining. When he failed to strike it rich, he turned to journalism and it was during that time that he successfully launched his writing career. While Twain's career as a writer enriched him, he lost a great deal of his writing profits and much of his wife's inheritance on different investments, the costliest was his backing of a promising typesetting machine. Twain recovered financially with the help of a benefactor, who guided him successfully through bankruptcy and even had Twain transfer his copyrights to his wife to keep his royalties from his creditors. Further success from book sales and lectures restored his financial health and in the end all his creditors were paid.⁹

Another important writer of this period, Henry James (1846-1916) was born in New York but spent most of his adult life in London, England, his most famous novel perhaps being, *The Turn of the Screw*. His writing also embraced realism. He represented the continuing emphasis in America on connections to the Old World, something which continued with several later writers. Like many of these he came from a wealthy family background. When in London he established relationships with Macmillan and other publishers, who paid for serial installments that they would later publish in book form. The audience for these serialized novels was largely made up of middle-class women, at the behest of the publishers, who played a key role in the development and financial success of authors, and, do to this day.¹⁰ He also spent time in Paris and both there and in London mixed with a wide array of artistically-creative people.

In contrast, many other writers at this time contributed to a new literature of social revolt. This was helped by the rise of journalistic magazines, providing both a source of income and a conduit for their critical writing. Henry Adams (1838-1918), the historian and author, provided the most critical

⁸ <https://www.britannica.com/art/American-literature/American-Renaissance>

⁹ <https://americanliterature.com/author/mark-twain>

¹⁰ https://en.wikipedia.org/wiki/Henry_James. West paints an interesting picture of the relationship between author and publisher as follows. 'Relationships between publishers and authors have come to be fiduciary, almost identical on the face of things to dealings between physicians and patients or lawyers and clients. Even experienced authors are usually ill-informed about the mechanics of book production, and they often know almost nothing about the marketing aspects of the industry or about the various ways a publisher can promote and distribute a book. Most publishers have preferred that authors be kept in *statu pupillari*. If the publisher (like the attorney or surgeon) possesses the vocabulary and the knowledge of the trade, then the author (like the client or patient) will have no choice but to trust the publisher implicitly.' (p.) (p. 18)

attack on society of the time, even though like so many others he hailed from a wealthy, patrician New England family and was educated at Harvard. And later appointed Professor of History there.¹¹ Edith Wharton (1862-1937) was also part of the American privileged class. As for so many, she had close links to other writers, including Henry James and Scott Fitzgerald (1896-1940 (see later), and Sinclair Lewis (1885-1951). Like others of the time, she travelled a lot to Europe. She was the first woman to win the Pulitzer Prize for literature, in 1921, for her novel *The Age of Innocence*.¹²

War and Inter-War Years

*Important movements in drama, poetry, fiction, and criticism took shape in the years before, during, and after World War I. The eventful period that followed the war left its imprint upon books of all kinds. Literary forms of the period were extraordinarily varied, and in drama, poetry, and fiction the leading authors tended toward radical technical experiments.*¹³

This period as indicated above was an exceptionally rich period for American literary output. Initially much of this writing took place in Paris and London, as well as in America. For example, Gertrude Stein (1874-1946) was an ex patriate, with a group of other American writers at the time, living in Paris when she published her *Three Lives*, an innovative work of fiction influenced by her familiarity with movements in contemporary art and music in Paris at the time. The poet Ezra Pound (1885-1972) also spent much of his adult life in Europe and was greatly influenced by other creative movements there at the time. He had a major influence on other poets, including T.S. Eliot (1888-1965), who won the Nobel Prize for Literature in 1948; he also moved to Europe, to live in England aged 25.¹⁴

Scott Fitzgerald (1896-1940) spent most of his youth in New York and then New Jersey, when he attended Princeton University. Fitzgerald dropped out of Princeton though and enlisted in the US Army in 1917 on the brink of World War I. He became an officer, married, and after being decommissioned, went to New York City to pursue his literary career. *This Side of Paradise* was his first successful novel, allowing him to travel extensively in Paris and the French Riviera in the 1920s, creating the backdrop for his most widely-acclaimed work, *The Great Gatsby*, which was published in 1925. He like so many others befriended great authors such as Ernest Hemingway (1899-1961) during this period. Fitzgerald contributed stories to *The Saturday Evening Post* for most of his career, thereby receiving a steady income for this writing.¹⁵

¹¹ <https://www.britannica.com/biography/Henry-Adams-American-historian>

¹² <https://americanliterature.com/author/edith-wharton> Pearl S. Buck (1892-1973) was the first American female to win the Nobel Prize (1938) but as the daughter of missionaries she spent most of her first forty years in China and much of her writings were about life there.

¹³ <https://www.britannica.com/art/American-literature/The-20th-century>

¹⁴ <https://americanliterature.com/author/ts-eliot>

¹⁵ <https://americanliterature.com/author/f-scott-fitzgerald>

Fitzgerald and many others of the time were critics of society, including Sinclair Lewis, but relating to different aspects of American society with which they were dissatisfied. Hemingway saw violence and death first-hand as an ambulance driver in World War I, which influenced his style of writing and led to his award of the Nobel Prize for Literature in 1954. He was an iconic American author and journalist, who covered the Spanish Civil War, and lived life with gusto it seems, travelling greatly.¹⁶

William Faulkner (1897-1962), another Nobel Prize winner (1949) and rival of Hemingway, spent most of his life in north-central Mississippi. Faulkner was surrounded by stories, hearing his elders' account of the Civil War, slavery, the Ku Klux Klan, and his family history, spawning his interest in writing.¹⁷ As such, his writing and background were very different to most of the writers discussed above. John Steinbeck (1902-1968) was another American winner of the Nobel Prize (1962) with a very different background. He spent most of his life in California and his masterpiece, *The Grapes of Wrath*, tells the story of the migration of a poor and down-trodden Oklahoma-based family to California, themes that run through much of his work. He had very unreliable income sources and had to live at times on welfare payments, with financial support also from his family. Joyce Carol Oates (1938) is another New Englander and wrote with urban violent material, such as the Detroit riots, and the bleak blue-collar world of her youth in update New York. She was a journalist and author, like so many authors, held various academic posts, including since 1978 one at Princeton.

This period also witnessed the flourishing of American drama and its international reputation in this genre. Eugene O'Neill (1888-1953) was the son of an Irish immigrant and grew up in New York City, who was also awarded the Nobel Prize (1933). His most celebrated work, *Long Day's Journey into Night*, reflected an interest in those on the fringes of life he would have met in New York. Two other great American playwrights also lived in this period, Tennessee Williams (1911-1983) and Arthur Miller (1915-2015). Williams, born in Mississippi, later travelled widely in America and Europe, apparently for inspiration for his work. He proved to be a prolific writer and one of his early plays earned him a sizeable sum of money in a writing contest. More importantly, it landed him a publishing agent who would become his friend and adviser.¹⁸ Miller on the other hand was yet another American writer based in New York, his most famous work perhaps being *Death of a Salesman*. His work provided a voice for the white working-class Americans and resonates to this day.

This was also a period for impressive new American poetry, during which traditional types of verse appeared but also experimental, new radical forms of poetry. The initial outlet for these writings were small magazines, the main one perhaps being in Chicago, the region becoming home to three

¹⁶ <https://americanliterature.com/author/ernest-hemingway> *For Whom the Bell Tolls* is one of his best-known works. Raymond Carver (1938-1988) was another later writer who dealt with blue-collar life, usually in the Pacific Northwest, where he lived.

¹⁷ <https://americanliterature.com/author/william-faulkner>

¹⁸ <https://www.biography.com/people/tennessee-williams-9532952> One of his most famous plays was *A Streetcar Named Desire*.

important poets of the time. We have already mentioned Ezra Pound and T.S. Eliott, who lived most of their lives outside the US. Apart from these two though there were many others, from various ethnic and regional backgrounds, most of whom did not rely on the presence of a large city for their creative writing.

Post WWII to late 20th Century

Not only did a new generation come out of the war, but its ethnic, regional, and social character was quite different from that of the preceding one. Among the younger writers were children of immigrants, many of them Jews; African Americans, only a few generations away from slavery; and, eventually, women, who, with the rise of feminism, were to speak in a new voice.¹⁹

As our data set ends with those born by 1949, and as many creative writers tend to be most productive between the ages of 20 to 40, then we are in effect talking mostly about those born between 1919 and 1949, some of whom have already been mentioned.

Post WWII saw the publication of some of the most popular creative writing in American history. Harper Lee's (1926-2016), *To Kill A Mocking Bird*, was published in 1960. Inspired by events in her hometown in Alabama, the book is about standing up for what is right in the context of endemic racist attitudes in the deep South.²⁰ Saul Bellow (1915-2005) was born in Canada but moved to Chicago in 1925. He had a long career in academia and won the Nobel Prize in 1976.²¹ He was one of the most influential novelists in this period, with his vivid pictures of life in an American city and the distinctive characters who inhabited them. J.D. Salinger (1919-2010) was raised in Manhattan, New York. Salinger published a story for the first time at the age of 21 when he met and befriended the founder and editor of the *Story Magazine* at Columbia University. His early stories were published here, but soon Salinger's work started making its way to more publications such as the *Saturday Evening Post* and *Collier's*. His experiences during action in WWII influenced greatly his most famous book *The Catcher in the Rye*. The autobiographic nature of the novel became the voice of a whole generation of young men wedged in frustration over the conventions of society and the perceived madness of the state-of-affairs in America.²²

The Second World War in fact led to a literary explosion in America. Norman Mailer (1923-2017) was born and bred in New York and became a major figure in US literary circles and, also, served in WWII. John Updike (1932-2009) was another whose novels broke new ground in America in terms of the 'uncovering' of some of the detail of American middle-class life. Updike grew up in

¹⁹ <https://www.britannica.com/art/American-literature/After-World-War-II>

²⁰ <https://americanliterature.com/author/harper-lee>

²¹ <https://www.biography.com/people/saul-bellow-9206329>

²² <https://www.famousauthors.org/j-d-salinger> Joseph Heller (1923-1999) was another in *Catch-22*, whose writing was a protest against the War. New York based, like so many others, he also wrote short stories and plays. <https://search.yahoo.com/search?fr=mcafee&type=C011IE978D20150227&p=Joseph+Heller>

Pennsylvania, and many of his early stories draw on his youthful experiences there. In 1955 he began an association with *The New Yorker* magazine, to which he contributed editorials, poetry, stories, and criticism throughout his career.²³ Philip Roth (1933-2018) explored Jewish identity in American society in the post-War period, his novels frequently set in New Jersey where he grew up. There was also a blossoming of African-American literature in this time, with Ralph Ellison (1914-1994) one of the most important exponents. In 1936 Ellison moved to New York and later worked as a researcher and writer for the New York Federal Writers Program. During this period, Ellison began to publish some of his essays and short stories and worked as managing editor for *The Negro Quarterly*. Ellison later enlisted as a Merchant Marine cook during World War II.²⁴

These years produced an abundance of strong poetry with clusters of poets evident, particularly in North Carolina. Some of the playwrights discussed earlier also produced major works post-WWII, with Edward Albee (1928-2016), producing his greatest work, *Who's Afraid of Virginia Wolf*, in 1962. He also moved to New York, from Virginia. It was during this time that the centre of American drama shifted from Broadway to Off-Broadway, New York though remaining the predominant centre for drama and theatre in the US.

At this time there emerged a group of important Southern writers, many of them female. Flannery O'Connor (1925-1964) was born and died in Georgia. Disabled for many years with a genetic disease, she lived modestly and worked on her mother's farm in Georgia and died very young.²⁵ Another prominent writer of the time was Toni Morrison (1931). Her work dealt with important phases of Black history and she won the Nobel Prize in 1993. She was a novelist, essayist, editor, teacher and later professor emeritus at Princeton University, from an African-American family in Ohio, whose parents grew up in the South.²⁶

Changes in Transport and Publishing Industries and Population

Railroads played a large role in the development of the United States from the industrial revolution in the North-east (1810–1850) to the settlement of the West (1850–1890). Railroads soon replaced many canals and turnpikes and by the 1870s had significantly displaced steamboats as well. With its extensive river system, the United States supported a large array of horse-drawn or mule-drawn barges on canals and paddle wheel steamboats on rivers that competed with railroads after 1815 until the 1870s.²⁷ The

²³ <https://www.britannica.com/biography/John-Updike>

²⁴ <https://www.biography.com/people/ralph-ellison-9286702>

²⁵ <https://www.britannica.com/biography/Flannery-OConnor> Others who around this time contributed to Southern fiction were Elizabeth Spencer (1921-) and William Styron (1926-2006), best known for *Sophie's Choice*.

²⁶ https://en.wikipedia.org/wiki/Toni_Morrison

²⁷ In 1800, the fastest way to go anywhere was to ride a horse. By 1900, there were almost 200,000 miles of railroad track in the United States, and magazines were delivered to subscribers and newsstands throughout the country about as rapidly and efficiently as they are today.

http://themagazinist.com/uploads/Part_1_Population_and_Literacy.pdf

canals and steamboats lost out because of the dramatic increases in efficiency and speed of the railroads, which could go almost anywhere year-round. The railroads were faster and went to many places a canal would be impractical or too expensive to build or a natural river never went. Railroads also had better scheduling since they often could go year-round, more, or less, ignoring the weather. During the post-World War II boom many railroads were driven out of business due to competition from airlines and Interstate highways. The rise of the automobile led to the end of passenger train service on most railroads.

There were also major changes in the publishing industry during the 19th century (see Lichenstein, 1978, and West, 1990), with the demise of handmade paper in the late 1830s, replaced by machine-made writing paper, lowering dramatically the cost of production. This invention with increasing literacy led to a huge demand for books, newspapers and magazines, as up to this, books had been a scarce resource, being largely the property of the privileged classes for centuries²⁸. It was the job of the 19th century publisher, and still is, to contract with an author to write the book, to arrange for a printer and bindery and, finally to market and sell the book.²⁹ Mark Twain's involvement with the American publishing revolution, which began in earnest when he was a child, absorbed him professionally and imaginatively as a teenager and continued to obsess him as a reporter, storyteller, traveling entertainer, author of books, entrepreneur, and international celebrity.³⁰

There were also major demographic changes between 1800 and 1950. The population of New England in 1800 was just over one million, rising three-fold to the end of the Civil War. It doubled to over six million by the beginning of the 20th century, rising to nine million by 1950.³¹ The population of New York state was over half a million in 1800, rising to over four million by the end of the Civil War, to around eight million in the early 20th century to almost fifteen million by 1950. The total population of United States, as it existed, around 1800 was just over four million, rising to around 35 million by the end of the Civil War, 92 million by the early 20th century, and over 150 million by 1950. Thus, six states, New England and New York, accounted for around 40 per cent of the population at the beginning of the period under review, still accounting for almost 30 per cent of the population by the end of the Civil War, falling to around 15 per cent by the start of the 20th century, and remaining stable

²⁸ The United States entered the 19th century with sixteen states and a population of 5.3 million. It's debatable whether half of the country's population was literate. By 1900, the U.S. had 45 states and 76.3 million citizens, more than 50 million of whom were literate.

See, http://themagazinist.com/uploads/Part_1_Population_and_Literacy.pdf

²⁹ 'The book publishing industry grew throughout the nineteenth century. The increase in literacy in America along with the growth in libraries and public schools provided a rapidly growing market for books. In addition, the introduction of technological advances allowed more volume at less cost. During the 19th century, big publishing firms emerged and some of these companies remain active in the industry today.'
<http://www.eduscapes.com/bookhistory/commodity/5.htm>

³⁰ <https://historyofbooks.wordpress.com/a-brief-history-of-the-personal-memoirs-of-u-s-grant/late-19th-century-bookmaking/>

³¹ New England is a geographical region composed of six states of the Northeastern United States: Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, and Connecticut.

then until 1950. This of course reflected the growing reach of the US, as it spread from thirteen states on the East coast, both south and east, to what it is today.

3 Determinants of Creative output

Age and Gender

There is considerable evidence that creative output is related to age, despite the difficulties of defining and measuring such productivity (see Lehman, 1953, and Kanazawa, 2003). Several papers have been devoted specifically to age and literary creativity (see Simonton, 1975 and 2007, and Galenson, 2005 and 2006), again showing a marked connectivity between age and creative output. Galenson (2005), using though just a sample of eleven poets, highlighted that the peak age for creative output depends on the type of poetry being written. In a similar vein he examined the lives of twelve novelists and reached the same conclusion, namely that peak age varies by genre of novel writers. Earlier though, Simonton (1975) used a much larger sample of literary writers, namely 420 ‘literary creators’ drawn from different times and countries. His findings suggested that poetry is produced at a younger age but found no difference between different forms of prose. Simonton (2007) argues as follows.

Typically, the peak occurs sometime in the late 30s or early 40s, and the productivity toward the end of the career is about half that at the career maximum. This longitudinal trend is approximated by an “inverted backward-J” function. This function is specified by a second-order polynomial in age where the linear term is positive, and the quadratic term is negative. Second, the specific shape of this single-peak function varies according to the domain of creative achievement. For instance, the optimal age for writing poetry tends to be somewhat younger than that for writing novels.

Some of these explanations for this are sociological or economic, whereas others are clearly psychological in nature, and that in the latter category is a two-step combinatorial model of the creative process. This model, that partitions creative potential into a two-step process of ideation (by which ideas are generated) and elaboration (by which ideas are converted into some output) and argues that since ideation and elaboration rates are more accelerated for poets, they experience earlier peaks and exhibit a more-accelerated post-peak decline.³² Simonton was robustly responding to Galenson (2005) who put forward an alternative theory of output trajectories in the arts and other creative disciplines. His argument was predicated on a distinction between two approaches to creativity, the *conceptual* and the *experimental*. In the

³² He even uses this to explain why the average life span for poets is lower than for other writers.

former category are the young geniuses or *finders* who conceive their best work as sudden breakthroughs that appear very early in their careers. In the latter category are the old masters or *seekers* who work painstakingly via trial and error, and thus whose best work does not emerge until late in life when they can finally savour the fruits of their labours. As such, using this argument one should not detect necessarily any difference in age-creativity profile between poets and novelists.

Kanazawa (2003) (and drawing on Miller 1999) provides evidence on the connection between age and creativity drawing on various sources and covering several creative activities, including authors.³³ The evidence shows a markedly similar pattern in terms of the age-creativity curve. This though was primarily for males, with much less marked peaks for females (although sample sizes were very small in all cases for females). In the case of male jazz musicians for example there is a very marked peak for those aged 30 to 40, with a similar peak for females but much less pronounced. The same gender difference applied to painters, and authors. Kanazawa (2003) examined also the crime-genius connection by age and found remarkably similar results as for creative activities. He argues that the reason for this is that ‘the same psychological mechanism that compels men to commit crimes also compels them to make great scientific contributions and express their genius in other forms’ (p. 265). He also, drawing on Miller (1999 and 2000) argues that the production of creative works is a cultural display designed to attract mates, just like by producing criminal products or making scientific discoveries, and hence the similar age-genius curves, and that over time once the genius is expressed it reduces, not because of lack of continuing genius but lack of effort (competitiveness).

But why should the pattern of creativity differ so much by gender over the life-span. Baer and Kaufman (2008) address the issue of gender differences in creative output, linked to life-cycle external factors. They conclude as follows:

*There continue to be large gender differences in creative productivity, and these differences represent the most significant unanswered questions about gender and creativity.... It is of course possible that there are significant creativity-relevant differences rooted in biology, although the most convincing evidence of this sort thus far does not suggest that either biological maleness or femaleness leads to greater creativity (pp. 98-99)*³⁴

³³ Accominotti (2009) argues that peak age for creative output can be influenced by whether a creative worker is in a movement or not.

³⁴ Benedek et al (2019) look at the motivations for creativity, a line of inquiry that might provide in time an insight to this issue.

Migration and Urban Centres

What is also of interest is the connection between age and migration of creative writers.³⁵ Is it the case that creative writers migrate most in the age spans when peak output might be expected? It could be argued that the fundamental sociopsychological processes which determine age of best creative output might also impact on willingness to migrate in search of greater opportunities in terms of creative stimulation and perhaps the financial means which would allow more time for creative writing. Or is it simply the case that those who migrated in their peak age for writing benefitted more from this experience than those who 'stayed at home'?

Why should there be benefits from migration to large centres of activity, especially for creative output? Storper, and Venables (2004) argue that large cities facilitate learning and are particularly attractive for highly-talented young people who have large potential returns from learning. Cities enjoy an advantage because of their economic and social diversity. This diversity, because it is highly packed into limited space, facilitates haphazard, serendipitous contact among people. And they argue that the diversity found in cosmopolitan cities facilitates 'creativity' because of the openness of their networks and the liberating force of resistance to hide-bound tradition.

The simple 'buzz' of such large centres then could lead to higher creative and other outputs. Individuals in a buzz environment interact and cooperate with other high ability people, are well placed to communicate complex ideas with them, and are highly motivated. In many buzz cities there is also cross-fertilization between sectorally-specialized networks. Publishing, theatre and writing for example have close interactions, something of importance for this paper. Different artistic activities and entertainment/ communications have strong crossover effects in their development of content. In the case of creative people in the arts, many of them must rely on part-time work to finance their lives and creative endeavours. Such employment opportunities will be much more available in big cities. Highly dynamic and unplanned contact systems it could be argued then is why urban diversity is central to certain kinds of creativity because of the specific advantages of unplanned and haphazard, inter-network contact. As noted earlier, many of the greatest US writers of the early 20th century moved to Paris for such experiences.

A key feature of the Storper and Venables (2004) paper is they argue that the above effects result only from regular face-to-face contact, as opposed to one-off meetings. They argue that this is particularly important in environments where information is imperfect, rapidly changing, and not easily codified, key features of many creative activities, including that of writing. This is based on the ideas developed earlier by Gertler (2003) with his emphasis on the importance of tacit knowledge, in a way that can be applied even more so to creative writers, in terms of two distinct concepts. The first is that of awareness or consciousness. The tacit dimension of knowledge exists only in the background of our

³⁵ Why these patterns exist has been addressed by psychologists and is not directly relevant to the focus of this paper.

consciousness, thereby enabling us to focus our conscious attention on every day matters. The second idea he highlights pertains to communication difficulties through codified knowledge. The tacit component of knowledge defies codification and in some cases articulation in any direct way. Besides, there is a link between tacit knowledge and social context. It is argued that tacit knowledge can only be shared effectively between two or more people when they share a common social context, shared values, language and culture

All these interconnections would suggest that increased creative output could result from living in buzz cities, not hidebound by tradition or social mores but exposed to exciting new frontiers of knowledge and human experience. As Wojan et al (2007) argue, if ‘a creative milieu does confer competitive advantages, then artists would have a strong incentive to move to the most creative places’ and that ‘it is more likely that Bohemians are able to realize their locational preferences, as they tend to be more footloose than other workers.’ (p. 712)

The buzz city of most interest for this study is New York, where as shall be seen there was and is a marked concentration of writers, particularly after the Civil War. In fact, Berlin rose to prominence as a major cultural city around the same time. As one observer on the Berlin scene then stated, the ‘increasing tempo in both communication and travel left people feeling ever more hectic and nervous, but at the same time it made for an exciting time of unparalleled inventiveness’ (Schnurr, 2011). In a similar way New York has long held a magnetic attraction for writers and the parallels between both cities in this regard are striking. What is important to point out though is that the interaction does not have to be between authors, but between authors and other creative people, or simply being present to a variety of experiences and motivations simply not available elsewhere.

There could though be marked differences by genre in terms of the advantages of living in cities. As mentioned above, the work of playwrights must be performed and often close contact with the theatre world is essential to getting work accepted, rehearsed (often with the playwright present) and performed. The same may apply, but not to the same extent, to writers of prose fiction, in terms of needing to be in contact with agents and publishers. New York city was and is the main theatre centre in the US and hence one would have thought have special attractions for playwrights. Many of the main publishing houses in the past were also in New York. More important perhaps for writers of novels were the opportunities to make a living from writing in periodicals and newspapers, many of which as seen earlier were based in New York for the period under consideration. This work not only provided an outlet for creative writing but also direct access to publishing houses. As seen earlier, many of the great authors realized the importance of publishers to their work, Mark Twain being a prime example.

It is difficult to see a priori why any specific location might matter for poets, unless they also had to make a living from writing for magazines and newspapers. On the other hand, many great poets seem to thrive on isolation, but of course many authors who wrote poetry also wrote in the other genres as will be seen later.

4 Empirical Findings: Number of Writers and Geographic Location

Data

The source for all the data was *Encyclopedia Britannica*. From this each year of the author's life could be tracked, with geographic location the key variable. All authors listed in this source were included, which came to around 483 in total. The time spans outlined in Section 2 were used, with an even spread of the authors across all four periods. Data on the number of important publications were also constructed, by year and author. These publications could be identified as novel, poetry/songs and plays/opera/film script. The source for all the data was *Encyclopedia Britannica*. Data on known contacts were also constructed, especially people the authors met throughout their life that may have contributed to their literary success, such as family, other authors, someone they worked/co-authored with, College friends and so on. In *Literature Online* information on the number of times an author's work was quoted was compiled. The data of most interest to this paper relate to location with the other data being used by Hellmanzik and Kuld (2019)

Number of Writers, Overall, and by Genre and Gender

Figure 1 outlines the total number of writers, male and female, living in each year, 1800 to 1950, compared to the total population of the US over that time.³⁶ As can be seen the number of authors increased rapidly over time, up to 1950, but decreased as a share of the total population.³⁷ Apart from the early part of the 19th century there was a sizeable number of prominent authors living in any one year, with well over 100 from 1840 on. Thus, the sample is large enough to make meaningful generalisations. One striking feature in Figure 1 is the number of females, below the numbers for males, but not nearly as markedly for other countries. And remarkably perhaps, over the period 1800 to 1860, the number of female authors slightly exceeded that of males (see Hellmanzik and Kuld, 2019, for a discussion of why the ratio of females to males was so much higher in the US than say Germany in the same period).

³⁶ Presumably including only European Americans and only in the states that formed part of the Union in each year.

³⁷ As the scales are different, it is not evident from the graph that population increased more rapidly than the number of authors.

Figure 1: Number of Authors by Gender (absolute numbers) and US Population (millions)

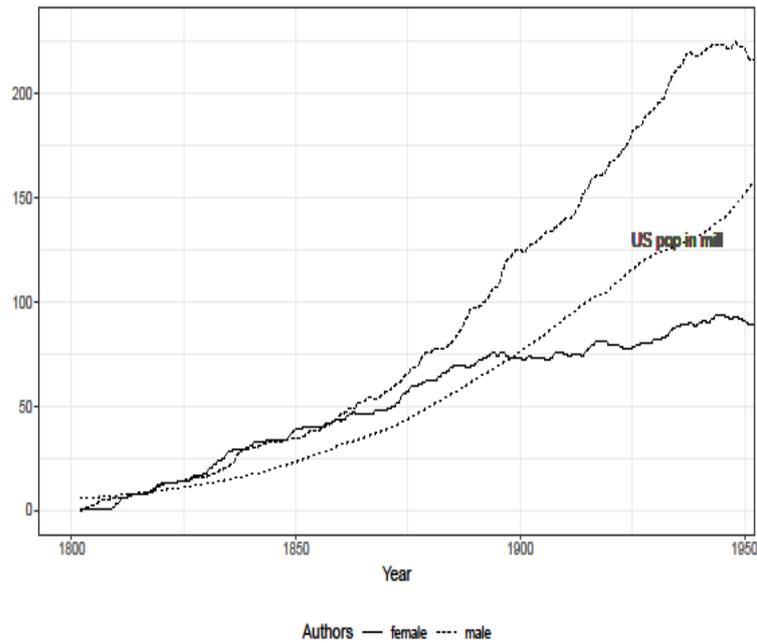
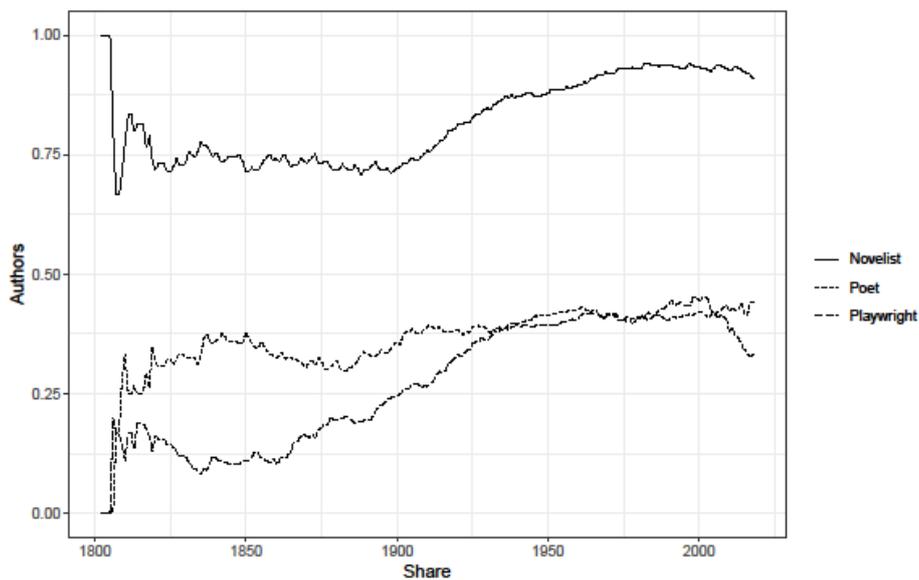


Figure 2 provides the number of authors by genre (novel, poems, plays), bearing in mind that certain authors wrote in more than one. Between 75 and 95 per cent of authors over the period wrote novels, with around 40 per cent also writing poetry for most of the period. The rise of writing drama noted earlier after 1900 is very evident also, with around 40 per cent of authors being playwrights also since 1925, a remarkably high figure in some ways.

Figure 2: Share of Writers by Genre



Note: the shares do not add to 100, as many wrote in more than one genre.

Geographic Location

Turning now to the geographic location of authors over the period, Figure 3 gives a breakdown by five broad areas in the US, plus the category 'abroad'. As was evident in the earlier discussion, most authors were located in New England up to 1860 hardly surprising perhaps given that the US during that time primarily just included the North-East coastal states. The meteoric rise of New York City from then to the end of the period looked is remarkable though (after 1950 remember no newly-born authors are included and hence the graph for the post-1950 period is simply plotting how many born before 1950 lived on into the later period). Another feature to note (although barely visible in the figure) is the large rise in authors living abroad from the 1920s and particularly in the WWII years (see later). The very large rise in the number in the category 'other US' is also not surprising, given the huge expansion West and South in the period under review. Even so, the number of authors in New York exceeded the total number in the 'other US' category from 1930 to 1950.

Figure 3: Number of Authors by Geographic Location, born 1800 to 1949, living from 1800 to 2018

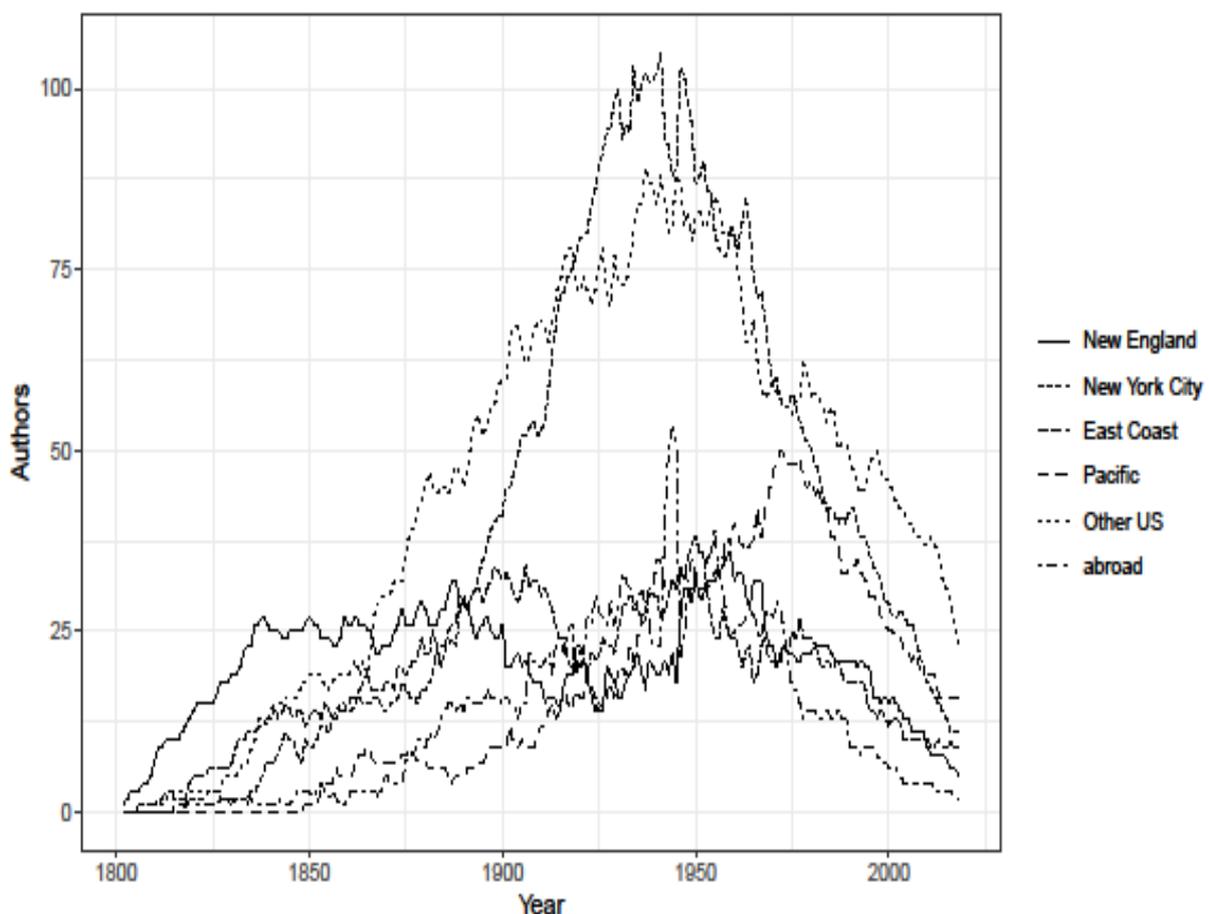
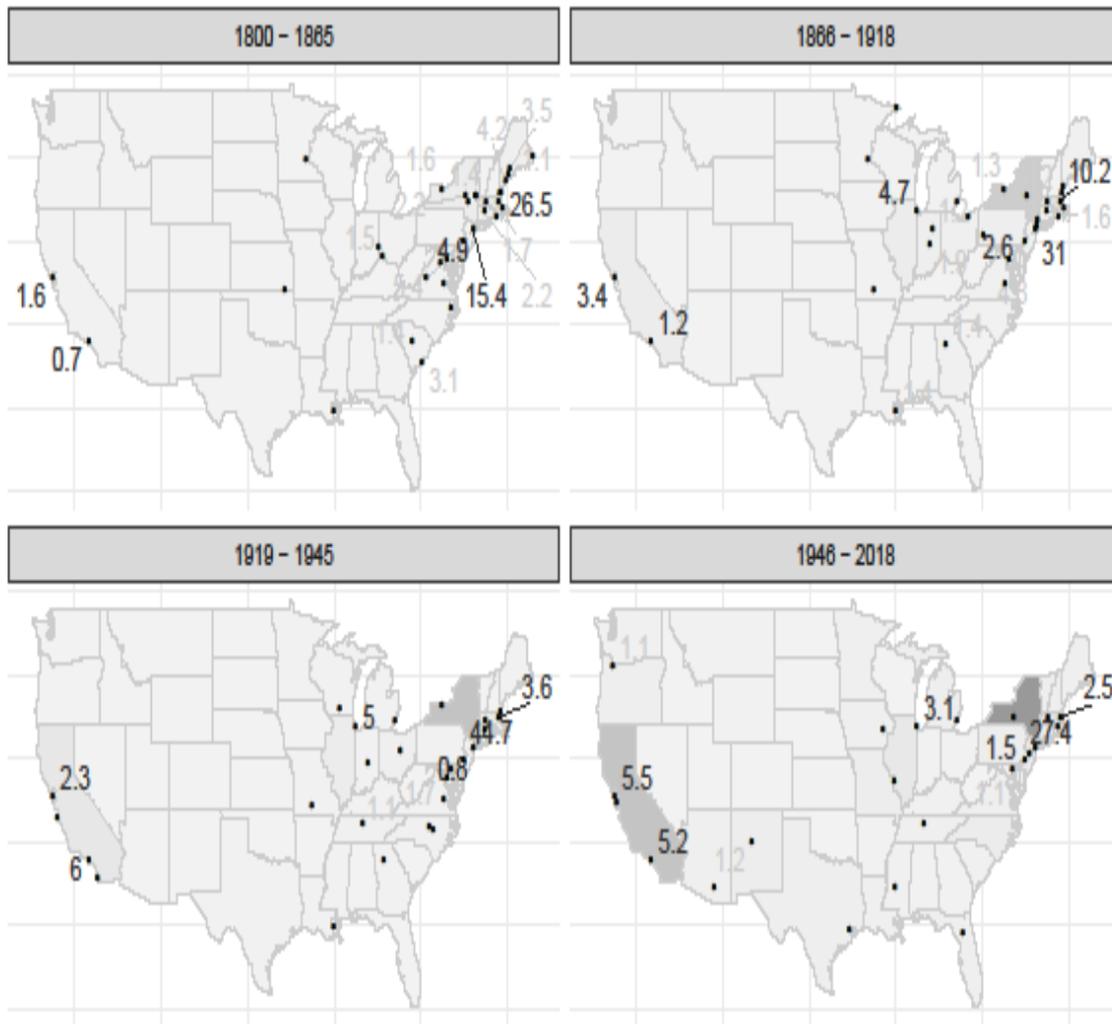


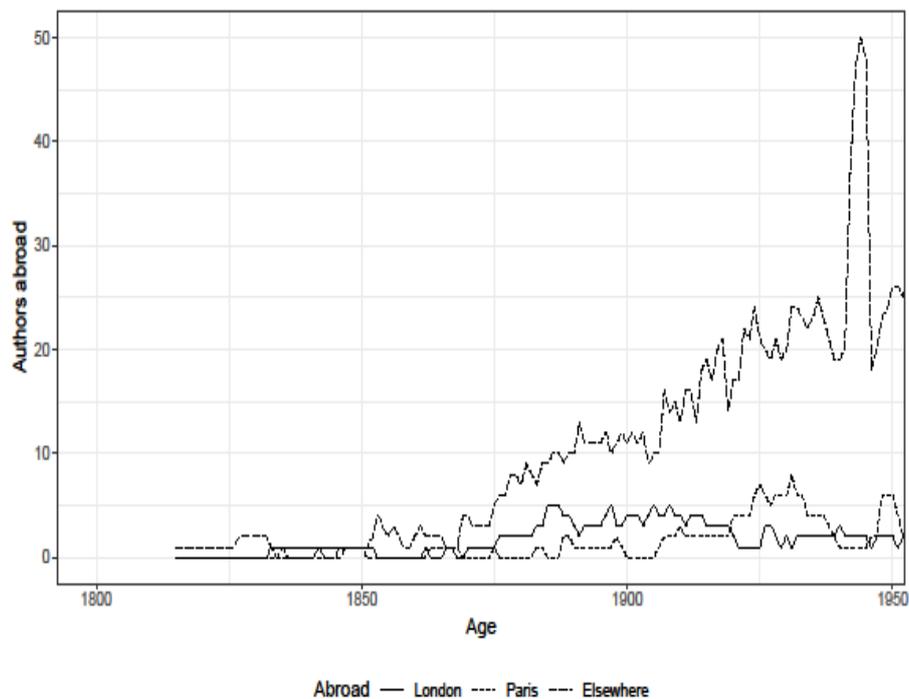
Figure 4 looks at this changing geographic distribution using illustrative maps which perhaps capture the changing locations more dramatically. Figure 4 uses a different measure to that in Figure 3, namely author years; the number of authors by number of years spent in each location for those aged over 18, born during the four periods identified in Section 2. This again highlights the prominence of New England in the first period, with 26.5 per cent of author years, New York accounting for a further 15.4 per cent, and the rest scattered over a number of other locations. The huge rise in the prominence of New York is evident in the following two periods, first rising to 31.0 per cent and then to 44.7 per cent of the total. Its share dropped back in the final period, but still accounted for 27.4 per cent of total US author years, a remarkable figure given the number of large cities in the US by then.

Figure 4: Percentage Distribution of Author Years (born 1800 to 1849) Excluding those Living Abroad



Given the earlier discussion in Section 2, it might be of interest to look at the pattern of US authors living abroad. As can be seen, up to 1870 very small numbers of authors were living abroad, but thereafter there was a steady increase, with a huge jump in the 1930s and 1940s. London and Paris were the main cities in which authors lived, but the ‘other abroad’ category is where the largest numbers by far lived after 1870. Thus, it was not simply some of the best-known US authors as noted earlier who spent time abroad, but many others, with a total of almost sixty in some of the year before 1950.

Figure 5: Number of Authors Living Abroad



5 Migration, Age and Literary Output

Figure 6 shows that most authors were born in the ‘other US’ category, but that this dropped dramatically steadily up to age 40, with a corresponding large increase in the number of authors in New York. There were increases in numbers in the other locations up to age 25 or so, but steady after this. This means that there was substantial migration of authors from ‘other US’ to other areas, the dominant destination being New York City. However, the migration to New York was not even over the whole period, as Figure A1 shows. The biggest in-migration was in the 1850 to 1890 period, with little net in-migration in the more recent period, with therefore those born there accounting for the bulk of those living there during the productive years. There

was though continuing large migration from the ‘other US’ category in all four periods, but more evenly dispersed in the most recent period. What are the features of these movers?

Figure 6: Number of Authors by Geographic Location by Age

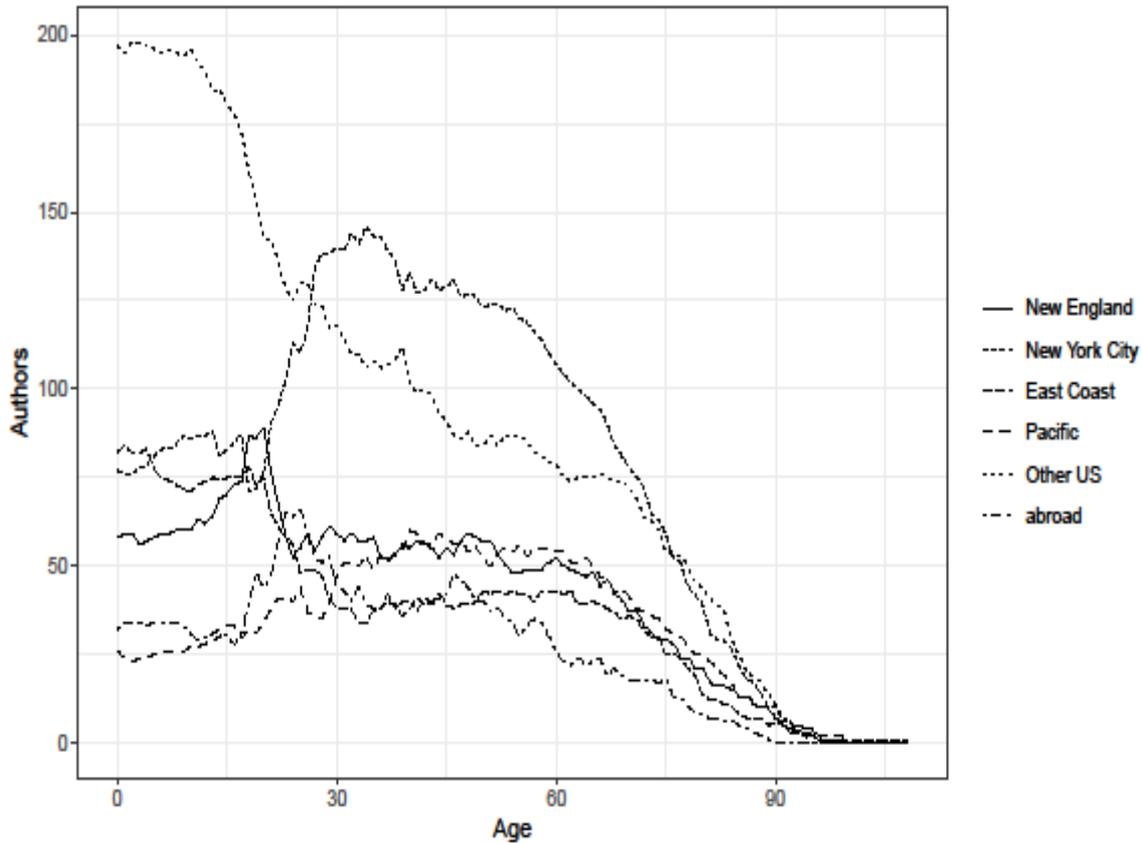
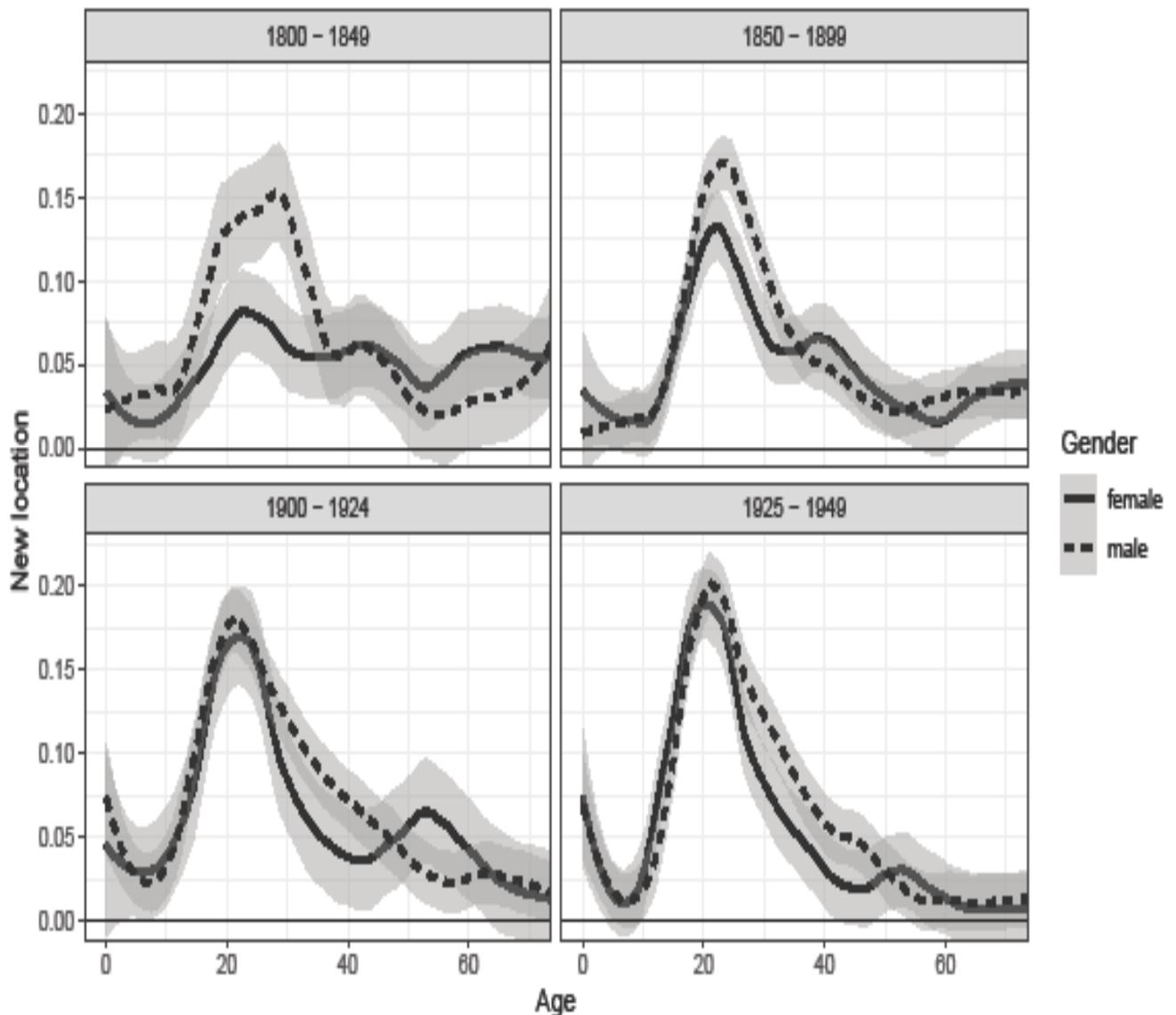


Figure 7 throws some interesting light on those who migrated over the four periods which are the focus of the empirical work, by age and gender. There are similarities across periods and by gender, but the differences are even more marked. In the first period, 1800 to 1849, men moved much more frequently than females, with a marked peak in the ages 15 to 35. There was movement of females but at a much lower level and with no peaks. For the period 1850 to 1899 the patterns for males and females were very similar, with peak movement for both again at ages 15 to 35. A similar pattern can be seen for the two remaining periods, 1900 to 1924 and 1925 to 1949. The level of movement is perhaps striking, showing for example for the period 1925 to 1949 that one-fifth of authors moved around the age of 20-22. Movement continued then up to age 60, but at a declining rate.

Figure 7: Age of Movers, by Period and Gender

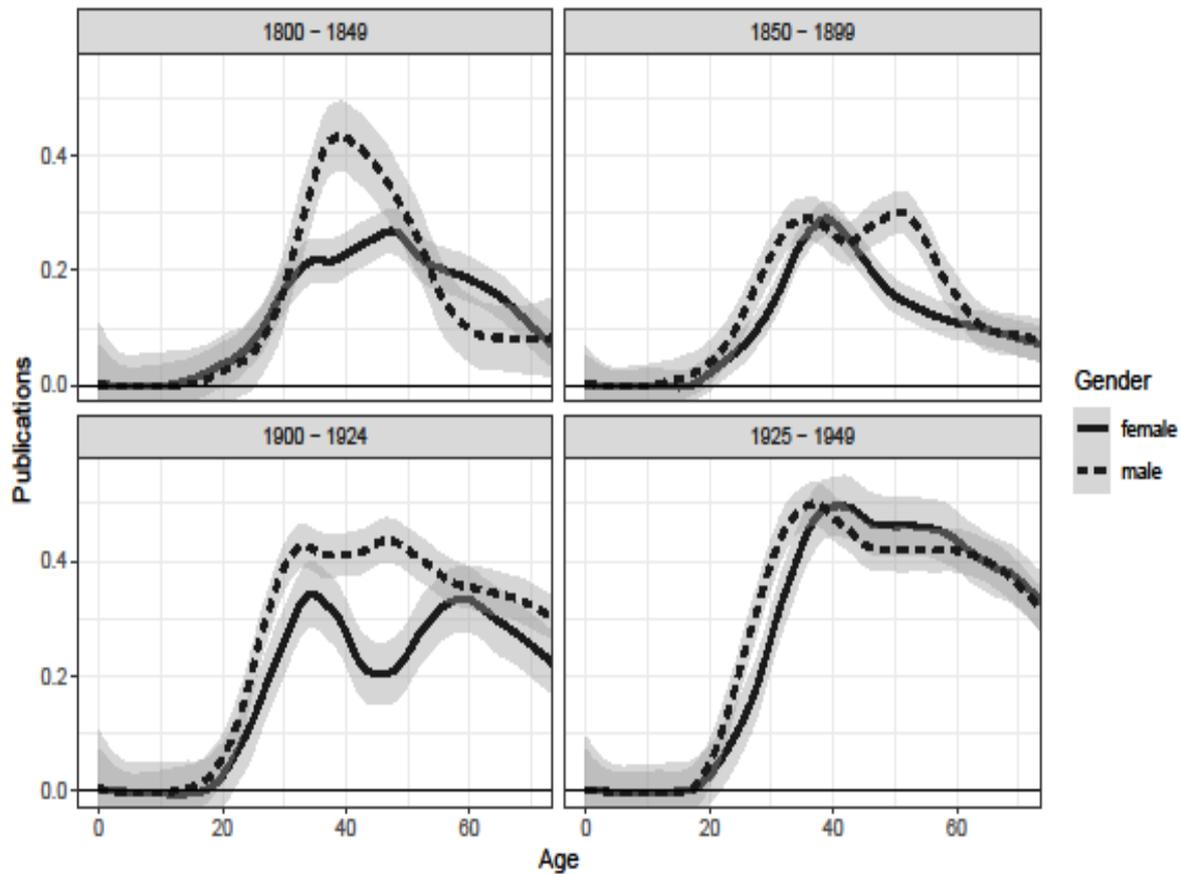


Note. The plots show univariate LOESS regressions with a span of 0.4 and 95 % confidence intervals (see the `loess(stats)` function in R for details).

Figure 8 tracks literary output, measured by average number of publications by author, for the four different periods. While creativity as measured this way, without any adjustment possible for quality, does increase in line with previous work as seen in Section 2 at around ages 20 to 40, there is after this no marked drop in creative output with age. The only curves which follow the pattern suggested earlier are for males in the period 1800 to 1849, and females for the period 1850 to 1899. These differences may be due the measure of literary output. Using an almost identical measure of creative output though, the evidence for Germany was in line with the previous studies noted earlier (see Kuld and O'Hagan, 2019). The German data did not though cover those born in the 20th century. As life expectancy increased dramatically from the mid-

19th century (from around 40 years), which continued through most the 20th century (around 75 years), this coupled with better health, could explain the longevity of output for authors in the 20th century. It is noteworthy also that the increase in output occurs in the decade or so following the age of movement.

Figure 8: Literary Output, by Age, Gender and Period



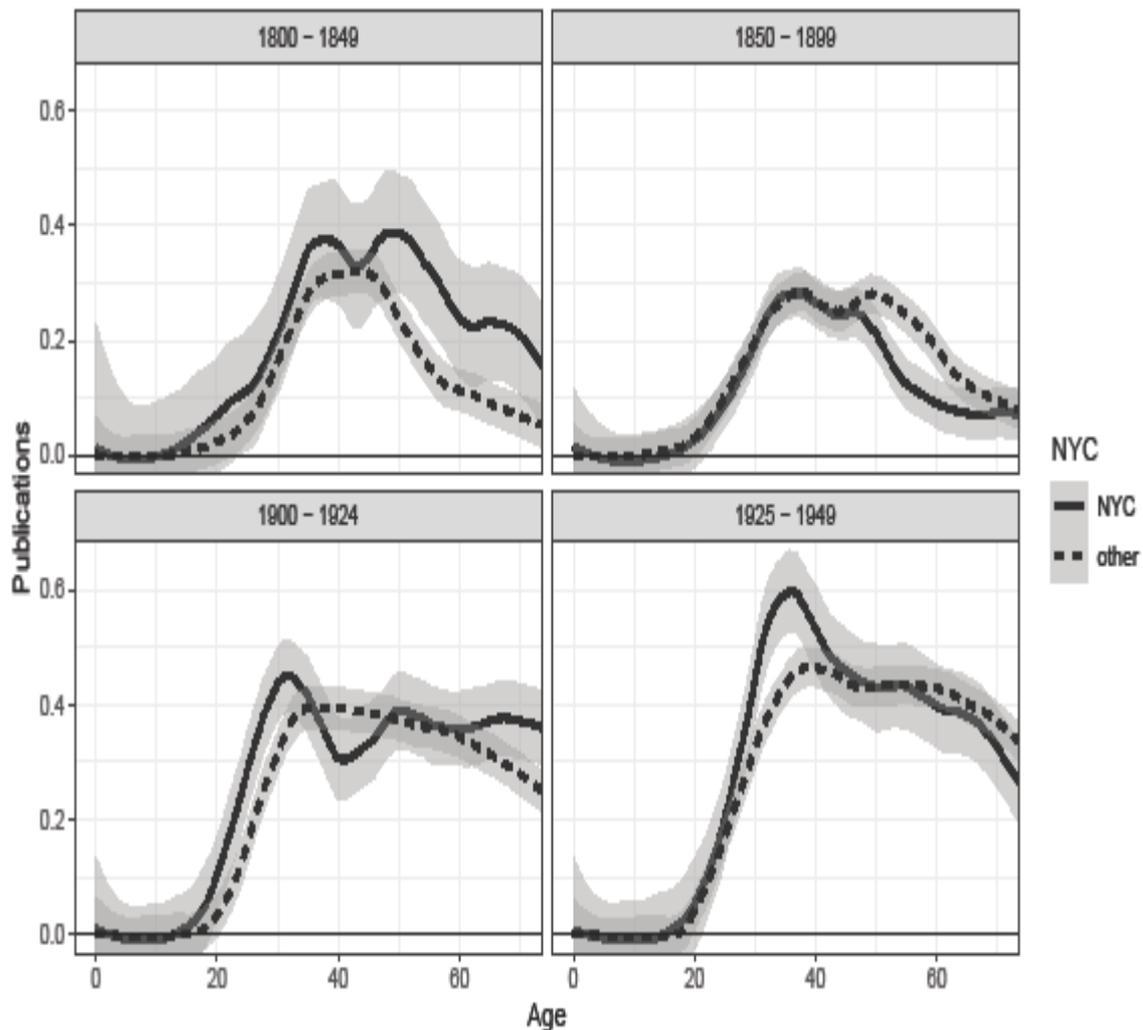
Note. See Figure 7.

It may be that the age/creative output relationship differs by genre of writing as suggested by earlier work. For all genres though the data shows that there is a rise in creative output for those aged 25 to 35, but for the 19th century there is no discernible difference in this pattern by genre. There are also no major differences in the decline by age by genre. The only really striking feature in the 20th century is that the creative output of writers of novels does not decline nearly as markedly with age as for those writing plays and poets, which might be expected perhaps.

Figure 9 explores further the link between creative output and age, comparing the main centre by far, namely New York to the rest of the US. Perhaps creative output in the former will show a different pattern, given the advantages of cities for creative work as outlined earlier.

No marked differences though are evident, except perhaps the following. First, peak output tends to be higher in New York City, especially in the 1924 to 1949 period, but only for a few years (see Hellmanzik and Kuld, 2019, for an analysis of the New York effect). Second, as elsewhere there is no inverted bell shape evident for either area, except again perhaps for New York in the 1924 to 1949 period.

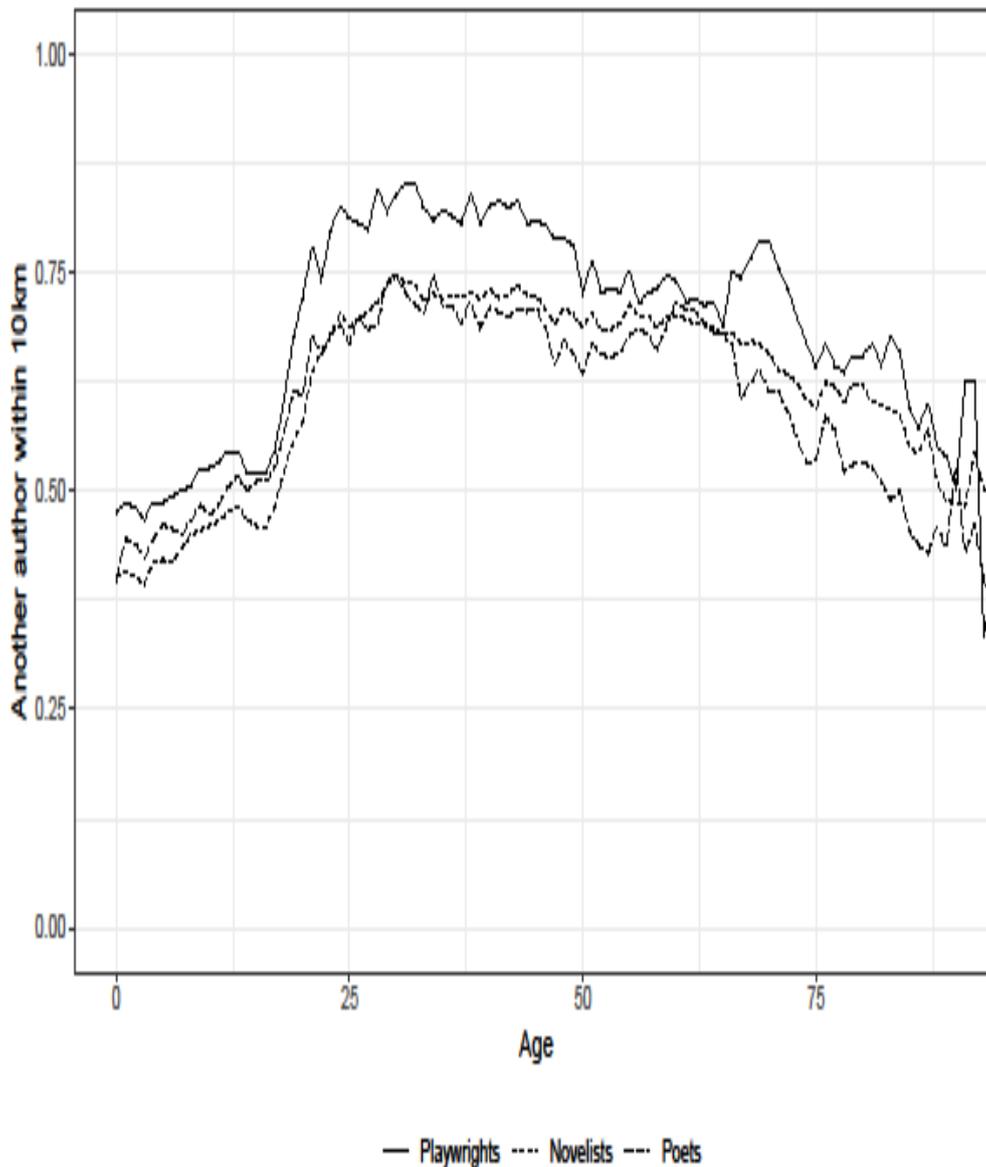
Figure 9: Literary Output by Age and Location



Note. See Figure 7.

Figure 10 relates to another advantage of cities, namely being near to other authors, with the consequential potential synergies that might generate. Figure 10 does show that over time authors tend to move closer together, be it in cities or wherever, and this is markedly evident for playwrights, who as mentioned before having perhaps the greatest practical need to live in a city like New York. It is noteworthy that the greatest increase in being in close proximity to another author occurs at the most productive ages of 15 to 25.

Figure 10: Proximity by Age to at least one other Author



Note: The plots depict quartic polynomials derived using logit regressions which include fixed effects for authors and the number of authors

Concluding Comments

Some interesting observations for the later statistical analysis were already evident from the discussion in Section 2. First was the prominence in the 19th century of New England and later New York, not only in terms of population but also in terms of wealth and the location of writers. Moreover, in the first seventy years or so, most of the top writers came from wealthy backgrounds there and did not have to

rely on an income from writing to survive.³⁸ Most of them also travelled widely, especially in Europe, with strong connections to the Old World. In the latter half of the 19th century, it was evident that the dominance of the N-E states of the US began to be broken but not markedly so.

Literature during this period reflected the times, particularly the changing circumstances that wars generated, including the Civil War and the two World Wars, and of course the Great Depression of the 1930s. These events also changed the location of economic activity and power. Of importance for writers were the changes in means of travel, thereby allowing much more movement and mobility, and changes in the paper and publishing industries which brought about mass circulation of newspapers, magazines and books, thereby making possible a lucrative living from writing in these various communication channels.³⁹

America during the period under review produced not only great fiction but also fine poetry and drama. For playwrights being close to producing theatres was clearly very important, with New York city emerging as the major centre for drama in the 20th century, both Broadway and Off-Broadway. In contrast, there was no pressing need for poets to locate in any special place, except perhaps close to other poets, although some of them were isolates. Many of them though in the later periods had to earn an income from sources other than creative writing, relying greatly on writing for magazines and newspaper which also had locational implications. They also needed to have regular contact with agents and publishers,⁴⁰ with again the likelihood that they had to be in certain centres.

Wars changed not only the economic but also the social structures of American. There were many prominent African-American writers emerging, whose writings were based on location-specific experiences. There were also prominent female writers in the second half of the 19th century, reflecting again particular experiences, but not necessarily tied to location: two of the nine Nobel Prizes in Literature awarded to US-born writers in the period under review went to female authors, one an important African-American writer.

This general overview as mentioned earlier not only provided 'colour' to but greatly informed the data analysis in Section 2, in several ways: in terms of the division of the period into subperiods, which geographic groupings to examine, with particular attention to be paid to New York, differences by genre in terms of location choice which should be checked and that even from the beginning of the

³⁸ As West notes, in this period "'Literary' composition was considered by most Americans to be an idle pursuit, something undertaken to amuse oneself and one's friends. There was strong disapproval of commercial publication and of the notion of earning money for literary work', (p. 10).

³⁹ Money from writing in magazines was extremely important. Indeed, authors often made a good deal more from serial rights than from book royalties. For example, Scott Fitzgerald earned some \$225,784 for his magazine fiction as opposed to only \$66,588 for his novels (West, p. 107)

⁴⁰ Partly because of the imbalance of bargaining power, the literary agent emerged in the late 19th century in the US. Lichenstein argues that 'the literary agent's primary function was not so much the protection of the author from the rapaciousness of his publisher, as the rationalization and centralization of the distribution of literary property to the several rather distinct markets that were emerging in the 1890s. In fulfilling this function as literary clearing-house the agent gave an added dimension of freedom to the professional writer, at the very time when editors and publishers were becoming more demanding in the requirements they imposed upon their contributors.' (p. 51).

period female authors were prominent, and why this might be so compared to the situation in other countries. The discussion in Section 3 drew attention to the importance of the statistical relationship between age and literary output, something that the data in Section 4 could throw light on. It was also evident from Section 2 that many writers migrated to several different places over their life and why that might be so, especially to a large and vibrant city such as New York, was discussed in Section 3. This prompted the later analysis of migration and age, and relating it to literary output and age, for possible patterns, especially being in New York.

The figures and discussion in Section 4 confirmed the overall impressions obtained in Sections 2 and 3. The number of authors by gender over the period was outlined in Figure 1. This establishes some clear facts. First, that the sample is large enough, for every year, to be able to make generalisations from the data with some confidence and, second, highlights the prominence, in comparison to the findings in other studies, of female writers throughout the period, especially in the earlier subperiod. Figure 2 shows that not unexpectedly that most authors wrote novels but that also that many (over forty per cent in some years) wrote poetry or plays, some of course combining two or more literary genres.

Figure 3 confirms that most authors (and not just the better-known) lived in New England up to 1860. The meteoric rise of New York City from then to the end of the period is the most remarkable feature though perhaps. Another feature confirming the earlier discussion was that there was a large rise in authors (again not just the best-known) living abroad from the 1920s and particularly in the WWII years. These writers were initially mainly located in England and France, but further afield in the later years (Figure 5). Using perhaps the better measure of author adult-years rather than number of authors, Figure 4 highlights again the prominence of New England in the first subperiod, with 26.5 per cent of author years, New York accounting for a further 15.4 per cent, and the rest scattered over a small number of other locations. The huge rise in the prominence of New York is evident in the following two periods, first rising to 31.0 per cent and then to 44.7 per cent of the total. Its share dropped back in the final period, but still accounted for 27.4 per cent of total US author years (compared to just around three per cent of the US population).

Figures 6 and 7 showed two things. The large-scale movement and migration of US authors, over their whole lives but markedly so in the years 15 to 30. There were almost no gender differences in this regard, except in the first subperiod when females migrated at a much lower level than males.

Figures 8 explored the relationship between literary output and age. The picture here is not so clear-cut. Using the *Encyclopaedia Britannica* data, literary output rises dramatically

between the ages of 20 and 35-40, for all subperiods. There are also no consistent gender differences. What is surprising is that there is not a marked drop in literary output after this, even up to aged 70, particularly for those born in the 20th century. This contrasts with the findings of other studies. It may be that it is easier to produce a higher level of literary output in literature, especially novels, up to old age, given that there are no infrastructural requirements as for example for scientists, composers and, to a lesser extent, playwrights. Besides over the whole period, there were large improvements in health and life expectancy, something that might explain the markedly changing picture over the four subperiods being examined, with the expected age-output pattern much more evident in the first two subperiods.

Figures 9 tentatively explored the relationship between the level of literary output and location, using a very simple comparison of New York with the rest of the US. It shows that there is no statistical difference between the two, except in the most recent subperiod and only for the ages 30 to 40. There must then be other reasons for migrating to New York, apart from the impact on literary output. For some playwrights it may mean no literary output at all if they do not move and likewise for other genres in terms of access to agents and publishers and other income-earning opportunities, if not available locally. Figure 10 though showed that when authors moved, it was nearly always to be closer to other authors, suggesting direct benefits to literary output interacting with others, not only authors but with the creative milieu of a dynamic city such as New York. The main benefit might that of life-style as discussed in Section 3, but it is hard to imagine that from this there is no evident impact on literary output. This is especially so since others found marked benefits to individual creative output, including authors (see Borowiecki, 2013, Hellmanzik, 2010, and Mitchell, 2019). It may be that more detailed analysis by genre and using data with some quality adjustment might show a different pattern, as in the work of Hellmanzik and Kuld (2019).

This paper though has provided a quite detailed statistical outline of, and basis for, aspects of US literary authors that were perhaps only understood in an anecdotal sense up to now. As such it may shape in some small way the literary criticism debate, as the opening quotation indicated, and also provide another historical example of creative cities long being a magnet for creative workers

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Appendix

Figure A1: Number of Authors by Age

