

TRANSPORT AND MIGRATION: TRANS-ATLANTIC FARES.

INDEX AND INFLUENCE, 1815-1870.

By John Killick¹

ABSTRACT:

This paper develops, for the first time, several overlapping series of transatlantic steerage fares, eastward and westward, between 1815 and 1870. The lack of such series inhibits discussion of the causes of the early nineteenth century transatlantic travel in general, and the critical Irish famine migration in particular. The paper examines the representativeness of the series, based on the unique Cope Line shipping records at the Pennsylvania Historical Society and the problems assembling the data. The findings are summarised in charts, but will be supported by detailed data sets in a completed article. The main conclusions are that westward sailing packet fares declined rapidly in the early 1830s and early 1840s, rose marginally in the mid 1840s during the early famine emergency, but declined further until 1852. Adjusted for US manual wages, which rose rapidly in the late 1840s, Atlantic travel costs almost halved between 1847 and 1851-3, the peak of the migration. Eastward fares also fell in the early 1830s and early 1840s apparently enabling an unexpectedly large return migration to Britain in the early 1840s and middle and late 1850s.

1. INTRODUCTION:

The dramatic growth of trans-Atlantic migration in the 1840s and early 1850s was one of the critical events of the early nineteenth century, and became a major component of late nineteenth century globalisation. The consensus is that this was due in the main to the tragic potato famine in Ireland and Germany. In England, push factors operated through industrialisation and the repeal of the Corn Laws. North America had its own independent pull. Ocean transport however has traditionally been seen as a barrier bravely overcome, offset marginally by low fares. Experience since 1950 demonstrates that low fares can have a massive impact on popular travel, but in the early nineteenth century we do not know exactly when and why, and with what effect fares fell. Hence leading migration specialists such as J.D.Gould observe that although econometricians would dearly love to test whether migration varied inversely, or not at all, with fares, manuscript historians have still failed to produce the necessary "consistent and long-term series of fares (transatlantic) on an annual basis". The aim of this paper is to do just that, and to suggest some of the potential implications.²

The most recent account in Raymond Cohn's excellent survey, Mass Migration in the Age of Sail (2009) rehabilitates sail ship improvements as a factor in the great migration,

¹ This study has been financed by grants from the British Academy. This is a preliminary draft for conference discussion – Please do not quote details without consultation. I have benefited from useful discussions with Drew Keeling. We are planning to present a complete index between 1815 and 1914.

² Gould, 'Patterns and Causes', 611; Gould cites sporadic information for instance in Taylor, *Distant Magnet* and Hyde, *Cunard*. He argues fares fell rapidly from 1815 to 1821, slower to 1830, and then fluctuated between £3.50 and £5 thereafter, exhibiting short term volatility within a long term stability.

and argues fare reductions encouraged the general acceleration of migration post 1830, but only as one element in a complex story. After careful analysis he concludes fares fell sharply in the early 1830s, and then stabilised in a range between £5.00 and £3.50 between 1835 and 1860. Fare reductions therefore had no additional effect on the far greater famine migration post 1845. He agrees fare fluctuations might have influenced migration timing, and argues the case for more detailed observations.³ This paper therefore presents several comprehensive series of transatlantic steerage fares from 1815 to 1870. It explains how the statistics were assembled, the representativeness of the sources, and the possible implications for the history of transportation and migration. Further work with collaborators continued elsewhere will take the analysis up to 1914.⁴

2. MAJOR SOURCES – THE COPE PACKET LINE

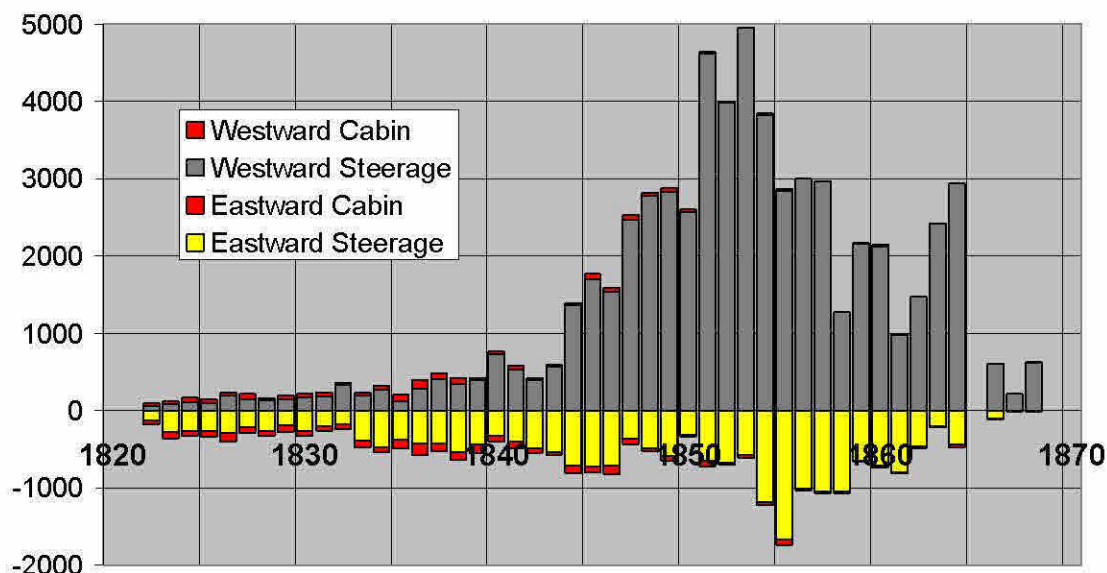
The main early nineteenth century sailing steerage fares in this study come from the Cope Line of Philadelphia to Liverpool packets. The line was established by Thomas Cope in 1822 and ran scheduled services between Philadelphia and Liverpool from 1822 to about 1870. Figure 1 – Passenger Numbers Per Year - exhibits the line's passenger business between 1822 and 1870 eastward and westward, cabin and steerage. The impact of the Irish migration is obvious, but the line also carried many English migrants. The ships remained in port in 1864 and 1865 because of the commercial problems of the Civil War, and the line stopped its residual passenger service in 1868. The line's records in the Pennsylvania Historical Society (HSP) are the only comprehensive source of an early nineteenth century transatlantic passenger line to have survived. The careful Quaker partners scrupulously preserved almost all the line's original documents, many of which deal with their passenger trade, and which can be reassembled into long run series analysing the firm's business.⁵

³ Cohn, *Mass Migration*, pp. 60-9. Cohn, *inter-alia*, cites Jones, 'Background to Emigration', pp. 1-92, Adams, *Ireland and Irish Migration*, pp. 45, 161-2, 229, Gould, 'Patterns and Causes', p. 612, and Taylor, *Distant Magnet*, p. 94.

⁴ Other major sources, and references to fares include Hansen, *Atlantic Migration*, p. 83; MacDonagh, *The Passenger Acts*, p. 46, and Coleman, *Passage to America*, pp. 22-3.

⁵ Killick, 'The Cope Line', *passim*.

Figure 1: Passenger Numbers Per Year



Source: Cope Records, Pennsylvania Historical Society.

The Copes' records are very detailed, and unfortunately no remotely equivalent New York records have survived. However their Liverpool-Philadelphia fares are probably a reasonable proxy for Liverpool-New York, and other fares. Cope faced three main opponents - transient ships on the Liverpool to Philadelphia route, the main body of American and British packets on the Liverpool to New York route, and steamers from Liverpool to Philadelphia and Liverpool to New York. Other major migrant streams went to Boston, Quebec and New Orleans, but these were too far from the Middle Atlantic heartland to be directly competitive. In the 1820s, Copes acknowledged that they were more expensive than the Liverpool to Philadelphia transients, but claimed they offered a better service. After 1840 they lost their high quality freight and cabin trade, and took more steerage, but still on superior terms. On the other hand their sailing packets were clearly inferior to the new Inman steamship line, which ran from Liverpool to Philadelphia between 1850 and 1857, attracted between 20 to 30% of the trade - mostly the better off - and charged much more.⁶

Most migrants went via New York at similar rates. The major difficulty Philadelphia faced in the early nineteenth century was the additional two-day journey up the Delaware in normal weather, and occasional much longer delays in severe winters when it froze. The extra marginal costs and additional uncertainty imposed was a major reason why the city lost her trade and financial primacy to New York after 1815, but it was not a regular problem for shipping once steam tugs and icebreakers were introduced in the 1820s and 1830s. Copes' captains occasionally reported New York rates when they

⁶ For histories of competing lines see Albion, *Square Riggers*, and Cutler, *Queens of the Western Ocean*. The Inman Line was initially the Liverpool and Philadelphia Steamship Line. See Coleman, *Passage to America*, pp. 236-42.

differed substantially from Philadelphia's, either high or low - 'The New Yorkers are taking them for £x!' - but these were probably reported just because they were exceptions. The distances and journey times taken were about the same from Liverpool to New York and to Philadelphia, and all the other lines, and inland connections, were in close competition, and it is very likely fares generally adjusted accordingly.⁷

3. COPE'S AVERAGE FARES. EASTWARD AND WESTWARD.

The regular Cope series begins in 1822 when they teamed up with William and James Brown (later Brown Shipley), the Liverpool branch of the prominent Anglo-American merchant bankers, to run a scheduled service between Liverpool and Philadelphia. Not only were Copes diligent accountants, but the agreement with the Browns required careful record keeping. The average fares eastward and westward, are the most easily assembled and complete long run series. The four packets Copes operated in the service at any one time, each made three voyages – six transatlantic passages - a year, and therefore the line collectively offered twelve scheduled monthly departures from Liverpool and Philadelphia annually. The Liverpool departures for years were known as the 'Packet of the 8th' (of the month). Copes also often used one to three older ships as ancillary and reserve vessels.⁸

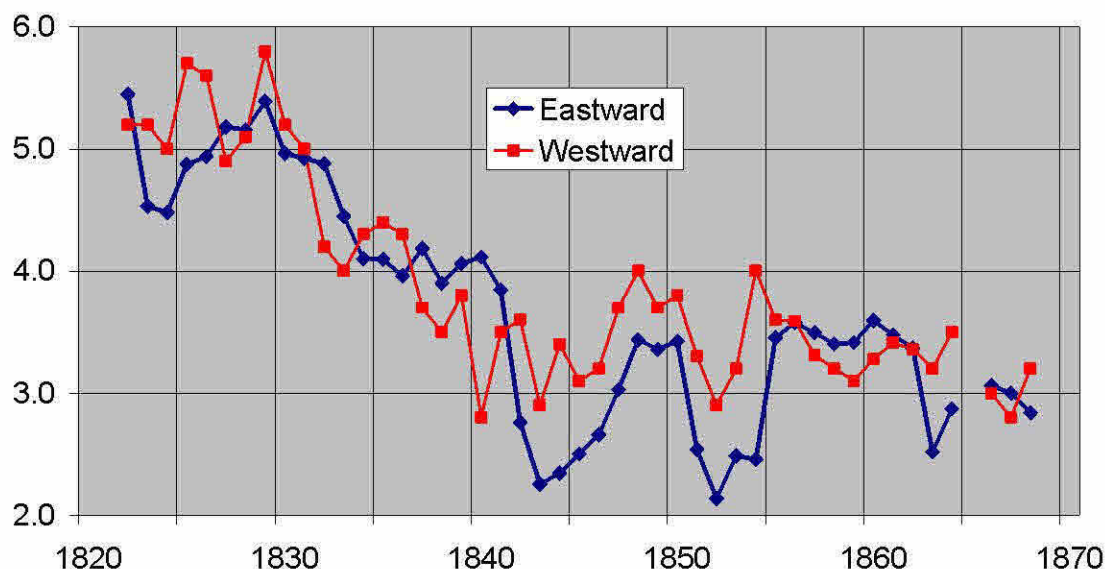
Figure 2 – Cope Average Steerage Fares - shows average fares – that is the steerage revenue on each packet divided by steerage numbers – and then averaged to determine the annual average. Copes' steerage revenues were accessed from the firm's accounts, and the westward numbers from the US Federal Government Passenger Lists. These list all passengers - cabin as well as steerage - but the cabin numbers can usually be estimated, and subtracted. Cope's eastward passage records – discussed below - identify every individual passenger - cabin and steerage, adult and child, - but unfortunately they did not keep equivalent complete records until 1837 on their more important westward passages.⁹

⁷ For Philadelphia's rivalry with New York see Albion, *Rise of New York Port*, pp.373-86, and Lindstrom, *Philadelphia Region, passim*, For contemporary views of Philadelphia's trade see Philadelphia Board of Trade, *Annual Reports*.

⁸ Killick, 'Copes'.

⁹ The Copes' freight, cabin and steerage revenues were extracted from the firm's Freight Books at HSP. This methodology averages rates as offered to passengers packet by packet, the whole year round. A simple average passenger per annum would overweight the summer months when more passengers sailed, usually at higher rates. The seasonality of numbers and rates is obviously an issue, but is not discussed here.

Figure 2: Cope Average Steerage Fares - £



Source: Cope Records

The general fall in fares between 1820 and 1840 was probably caused, by the problems Copes had finding good cargoes in the early 1830s from Philadelphia, and in the early 1840s from Liverpool, and by the increasing number and size of ships. Average fares fluctuated at about £5 until 1830, and then fell rapidly.¹⁰ In the early 1830s, eastward cargoes from Philadelphia were depressed, and in the late 1830s the panics of 1837 and 1839 disrupted trade. In the early 1840s the Copes' westward cargoes and cabin trade failed because of the depression, and new steamer competition. Copes' average westward fares were generally a little more buoyant than eastward fares because of the pressure of demand in Liverpool, and fell under £3 only in 1840, 1843 and 1852. The Copes allowed their average eastward fares to fall to almost £2 between 1842 and 1844, perhaps searching for a market during the depression, and between 1851 and 1854, during the American boom, when the bulk of the flow was westwards.¹¹

US export cotton trade volumes rose rapidly between 1839 and 1845, and grain and

¹⁰ The Copes held eastward adult fares steady at \$30, or £5.6 - see Figure 3 - between 1822 and 1832. The apparent dip in the eastward average is apparently due to a higher proportion than normal of children and infants in some months - since these paid less than adults - see Section 4.

¹¹ Historians have traditionally labelled the early 1840s as hard times - but there is also evidence that output expanded in 1842-3 - See Cohn, pp. 82-4. It was however at best a special sort of expansion unlikely to attract immigrants. The US suffered declining prices, severe banking and financial crises, and capital investment, imports and immigration all fell. Temin, *Jacksonian Economy*, pp. 148-171, argues competitive small farmers and manufacturers raised output at low prices to pay debts, rather than reduced production. High volumes were exported at low prices to restore US credit. This is the sort of expansion might be expected after severe banking crises in a relatively undeveloped economy.

migration volumes from 1846, generally stimulating American shipbuilding. American tonnage rose from 763,000 tons in 1840 to 1,440,000 tons in 1850, and the Copes themselves built several larger new ships, and retained some older ones. This extra tonnage exerted downward pressure on fares when demand lagged. Steerage became a major part of the Copes' business from the early 1840s, and the numbers per ship increased from 61 in 1840, to 141 in 1845, and 214 in 1850. It was fortunate therefore that when the Irish famine surge began in 1846, that the Copes, and other packet lines, already had new ships and good organisational arrangements in place. Hence fares did not rise as much as they might have done during the famine emergency, and in fact fell during 1850-53. The Crimean War diverted tonnage in 1855 and 1856, raising fares (and freights), but once peace returned, and the famine migration declined, they fell until 1860.¹²

Average rates however are not actual single adult fares because children were carried at reduced or half price depending on age, and infants at nominal prices, or free, and because in Liverpool migrants often haggled for better rates. Average rates also concealed different rates allowed for different parts of the ship. The Copes charged 'forward or second cabin' passengers marginally higher rates than plain steerage, which secured them a slightly superior form of steerage. Finally there was a difference between the spot rates charged by brokers in Liverpool, and 'prepaid' rates charged by the Copes in Philadelphia. Prepaid tickets were bought by successful migrants to send to relatives in Ireland or England. These additional complexities are therefore now discussed.

4. COPES' EASTWARD STEERAGE FARES, 1820-1870.

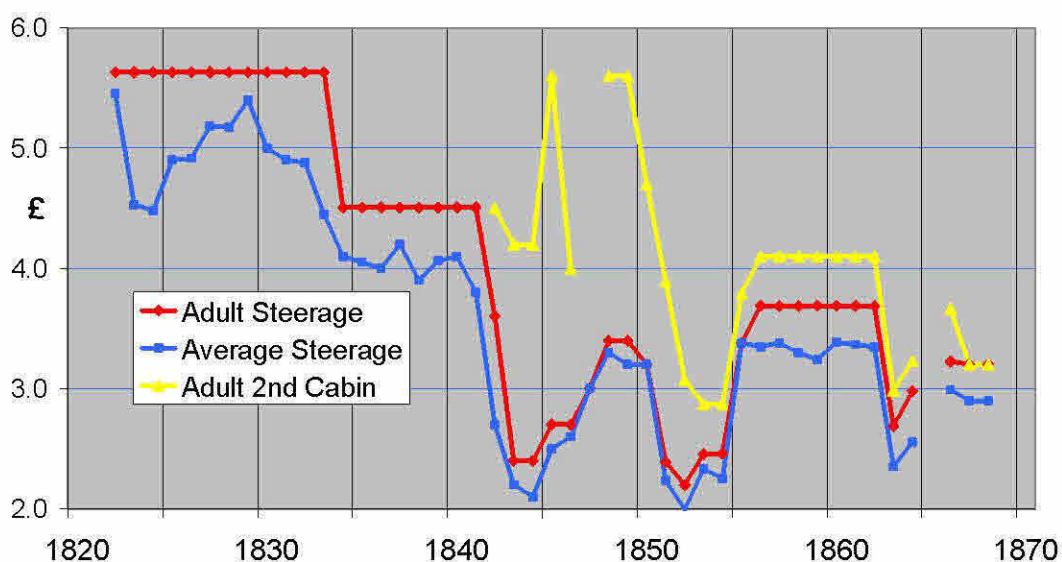
Copes' eastward steerage fares fell rapidly in the early 1830s and early 1840s – See Figure 3 - and seem to have encouraged far more travel than might have been expected. In the middle and late 1850s on the other hand the demand for eastward passages was apparently so strong that they were able to raise fares despite, or perhaps because of, hard times in America. It has been general conventional wisdom – with some exceptions - among migration historians for many years that very few migrants – possibly one per cent - returned to Europe in the sailing ship era because of the hardships of the voyage. Overall however – See Figure 1 - between 1820 and 1860, the Copes carried about 60,000 passengers westwards, and 23,000 eastwards - ie their eastward numbers were about one third of their westward numbers. Fortunately their eastward passage books list all their passengers, including families, adults and children – which can easily be summed. The fares paid are equally accessible. Payments were made by family or passenger group, but sufficient passengers travelled individually to identify adult and child fares. Copes charged standard rates to all comers eastbound – often maintaining the same rate for several years and only adjusted fares when the market had obviously changed as in the early 1830s and early 1840s¹³

¹² The depression of 1857 also forced down fares. Average fares oscillated about £3 during the Civil War, but by this time steamer rates which had been £10 in 1850 were falling to £4.50 and the sailing packets were losing their residual trade.

¹³ Cohn, *Mass Migration*. pp. 10-11 summarises the conventional view. However in the 1950s and 1960s some prominent economists such as Mathew Simon, and Simon Kuznets and Ernest Rubin suggested much higher figures. The US government only directly recorded figures for return migration from 1907/08, but using other sources Mathew Simon calculated 25% returned

They initially sold only cabin and steerage tickets, but from 1851 began issuing the 'second cabin' tickets mentioned above. The initial relatively high second cabin fare seems to imply that they hoped to create a real second class category - but in practice they found they could not charge much more for second cabin than for steerage. Normal adult fares fell from a standard \$25 = (£5.6) in the 1820s to \$20 (£4.50) in the early 1830s, and then to just over £2 in the early 1840s. The lowest figure was \$10 = £2.1 from August 1843 to September 1844, and \$10 from October 1851 to September 1852. Thereafter it varied between £2 and £4. The deviation between the adult and the average fare in the 1820s and early 1830s – see Figure 3 – Eastward Steerage Fares - was caused by variations in the ratio of adults to children and infants, and later also by the ratio of steerage to second cabin.¹⁴

Figure 3: Eastward Steerage Fares, £



Source: Cope Passenger Books, 1822-1868. PHS.....

home in the depressed 1870s, 17% in the prosperous 1880s, and 45% in the depressed 1890s. Simon, 'United States Balance of Payments', pp. 664-6, 690. By extension it is likely more than 1% returned earlier. Kuznets and Rubin, *Migration and the Foreign Born* suggest 10% returned pre 1860. See Gould, J.D., 'Patterns and Causes' pp. 606-15, and Gould, 'Return Migration', p.49

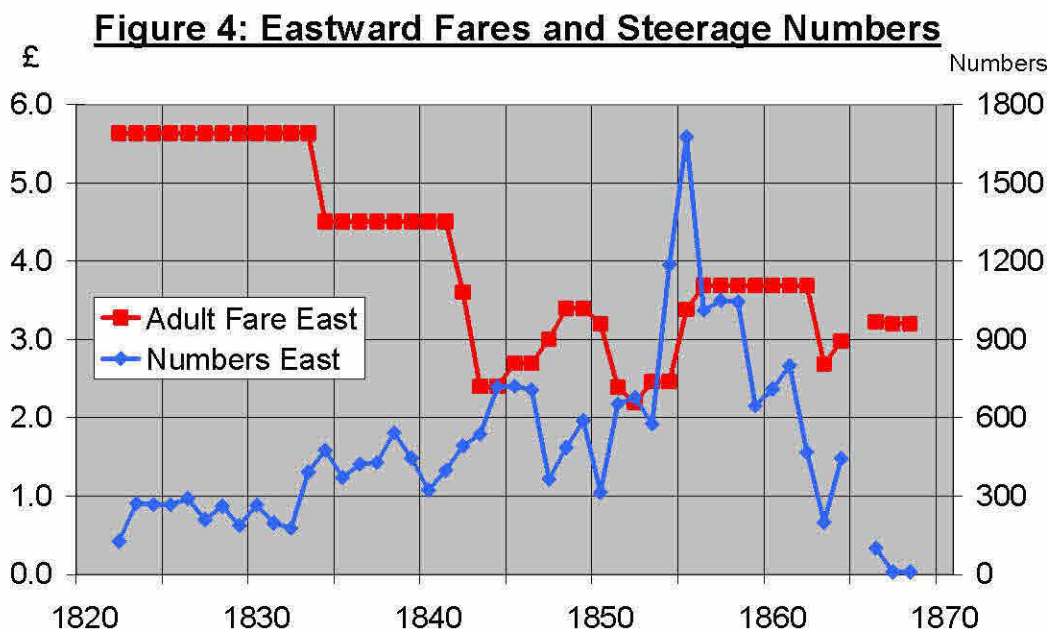
¹⁴ Passengers paid eastward fares in dollars in Philadelphia, but for consistency these have been converted into sterling. The US official rate was changed from £1=4.44 to £1=4.80 at par in 1834, but with a varying premium on the par value of sterling which made the change less abrupt. Officer, 'Dollar-Pound Exchange Rate', provides annual exchange rates including the premium. Browns noted the New York packets shifted to \$4.80 in July 1838, and Copes moved later that year. However Copes went on using the old rate with different premiums for some purposes at least until December 1845. Here fares have been converted to sterling at £1 = £4.44 until December 1845, and thereafter at £1 = \$4.88 - but a revised version of this paper will use a more consistent rate.

The sharp fall in the early 1830's may have been caused by the problems Copes had in finding eastward cargoes. The sharp fall in the 1840's was obviously caused by the American depression, and maybe the policy of the company to find new business, as the cabin trade declined. Eastward fares not unreasonably rose in the famine years when the Copes were carrying large cargoes of grain to Liverpool, and when the bulk of the passenger trade was westward. There was a relapse between 1850 and 1852 after several competing packet lines, and the first steamers – the Inman Line entered the Philadelphia trade. Most interesting is the rise in the middle and late 1850s when America was absolutely and relatively depressed. Probably many unsuccessful immigrants decided to return home, despite higher fares, and temporarily eastwards fares rose above westward – see Figure 2. ¹⁵

There was apparently a strong inverse relationship between fares and eastward numbers, or perhaps between fares, eastward numbers and more fundamental causes until say 1853 – see Figure 4 – Eastward Fares and Steerage Numbers - Eastward numbers rose substantially in the early 1830s when fares fell, and again in the early 1840s when fares fell. It seems very likely that declining fares encouraged more eastward travel in those years, although especially in the early 1840s, there were good underlying reasons for migrants to leave America. Eastward numbers fell not unnaturally during the famine period, while eastward fares rose. Fares moved inversely with numbers for the last time between 1851 and 1853. However in the middle 1850s demand for return passages were so strong, probably because of disillusion with the US, and better times in Britain that the Copes were able to experiment with and maintain higher fares. ¹⁶

¹⁵ Inman's first steamer, the City of Glasgow, left Liverpool in December 1850, and arrived in Philadelphia in January 1851. On the westward route the US Passenger Lists show they carried a higher grade of passengers than Copes - but there are no passenger lists on the eastward route. For the new Philadelphia to Liverpool packet lines in the late 1840's and early 1850s - see Cutler, *Queens*. pp. 403-8.

¹⁶ The Copes' passenger lists record adult passengers' names, gender, family relationships, and young passengers' ages - to make sure they bought the right ticket - but not occupations or addresses. It would be possible therefore to compare the family and gender composition of incoming and return migrants in similar years.



Source: Cope Records. HSP.

The substantial numbers sailing eastward are surprising. Cohn summarised conventional opinion and cited the best sources in his recent book. Antebellum migration ‘...in virtually all cases was, permanent.’ The long and hazardous outward voyage made return unlikely. Return to Germany before 1860 was... “consistently under 1%”. Return migration to Ireland was similarly very small. Return migration to Britain may have been larger, but more of the British would have been merchants...’ Nearly all migration historians say very much the same thing. The problem Copes’ eastward passengers raises for this is that the sum of the total passengers from England, Scotland, Wales, ‘Other UK’ not counted in the individual country figures, and Ireland between 1820 and 1860 was about 2.75 million - see Table 1 below. The 23,000 eastward passengers Copes alone carried between 1820 and 1860 was just under 1% of the westward total. In the 1840s and 1850s nearly all these were steerage passengers. It is difficult to know how to take the evidence of a single packet line, but the numbers are impressive. Several other packets and transient ships sailed regularly from Philadelphia in the 1840s and 1850s, and there were many more from New York and Boston.¹⁷

Table 1: Eastward Passenger Numbers as % Westwards, 1820-1860

17. Cohn, *Mass Migration*, p.10-11 for return migration. Cohn, pp. 23-24 for calculation of ‘Other UK’, and total British figures. Copes ran four packets to Liverpool monthly in the late 1840s and 1850s. In 1850, three other Philadelphia to Liverpool lines regularly ran several ships each. Cutler, *Queens*, pp. 403-8. Similarly in 1850, several New York lines ran 24 packets to Liverpool and 16 packets to London. Albion R.G., *Square Riggers*, p. 274. In addition there was also a substantial Boston to Liverpool and London service, and a Baltimore to Liverpool service. Cutler, *Queens*, pp. 371-6, 408-10.

England	303,000
Scotland	48,000
Wales	8,000
Other UK	436,000
Ireland	1,957,000
Total	2,752,000

Copes Eastward	23,000
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Source: Cohn, pp. 23-34; Copes Passenger Records.

The number of return passengers seems potentially therefore to be very much higher than the conventional 1%, and more in line with estimates made by Simon, Kuznets and Rubin in the 1960s and 1970s. Unfortunately there is no British equivalent to the US Passenger Lists from 1820. The first British Passenger Arrival Lists begin in 1878, and then are not complete. Copes and no doubt other carriers may have pioneered the trade in the early 1840s when they were probably desperate for extra income because of the US depression, and when there were probably many English and Irish workers formerly employed on the Pennsylvania state works and other capital projects, now anxious to leave. Similarly the large outflow in the late 1850s came when US railroad building and other investments had stopped, but Britain was relatively prosperous. The passenger traffic from Ireland to Liverpool was so strong throughout the period, that a relatively few Irish arrivals from America may not have been noticed.¹⁸

There were many business and social reasons other than unemployment of course why migrants would return – for instance to see, or maybe collect family. Migrants returning again to the United States with for instance relatives or a new bride would of course have been counted twice. The conventional view always cites the length and difficulties of the westward passage, but return migrants may also have been encouraged by the much easier and quicker passage eastwards than westwards. Probably also the conditions on the westward passage – as Cohn effectively demonstrates elsewhere – see below - were not so terrible as normally painted, and the emigrants therefore not so permanently deterred from ocean travel. There are of course major implications for the substantial demographic and economic impact of the huge 1840s-50s migration if significant numbers returned to England.¹⁹

5. COPES' WESTWARD STEERAGE FARES, 1822-1870

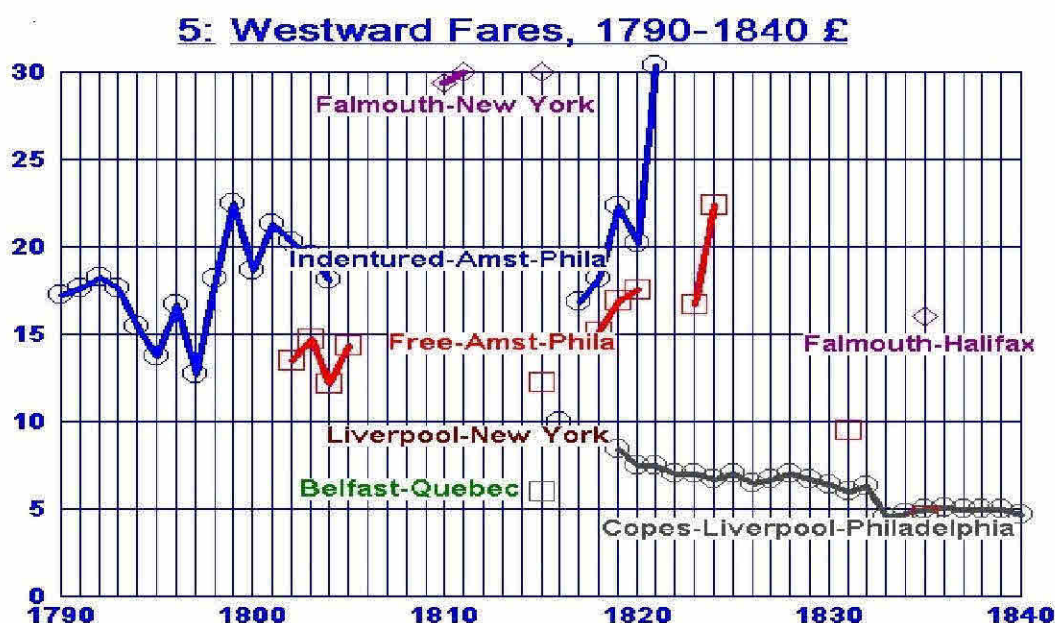
Westward fares were purchased either on the spot in Liverpool by migrants with some capital, or prepaid in America by successful migrants for poorer relatives. In the eighteenth century the cost of the passage of poorer migrants was often advanced by the shipper, or by American agents in return for a period of bonded labour (indentured

¹⁸ For Simon, Kuznets and Rubin see Footnote 13. HMSO, *Guide*, p. 275. Traditionally British economic historians have emphasised very low immigration rates in the early and mid (19th. For instance Clapham notes only 105,000 foreign born were counted in the 1871 census - see Clapham, *Free Trade and Steel*, (1952), p.441-2. However far more British-born probably had considerable overseas experience, but had returned.

¹⁹ See Cohn, *Mass Migration*, Chapter 8 for estimates of the impact.

servitude). There were fairly well organised markets in Philadelphia and other port cities for the redemption bonds created by the trade. As fares declined in the early nineteenth century and American incomes rose, gradually family and friends of the migrant assumed the costs of the passage - and repayment or compensation was made as part of the normal web of informal intra-family obligations. There was a final spasm of debt passages in 1816-1818 because of post war and climatic conditions in Germany, before the redemption system almost completely collapsed in 1820.²⁰

Figure 5 –Westward Fares - suggests the wide range of steerage fares before large scale trade, emigration and competition narrowed the gaps in the 1820's and 1830's. The Falmouth to New York packets were part of the wide-spread international operation organised by the British Post Office, and offered the only scheduled service between Europe and America before the first private Anglo-American packet service, the Liverpool to New York Black Ball line, was created in 1817. Sailing from the most westerly British port and relatively safe from French privateers, the Falmouth packets could charge premium rates in the eighteenth century and during the Napoleonic wars - £30, in 1811 and 1815. These fares, which included provisions, but not bedding, were the maximum captains could charge – and so the norm may have been lower. However Falmouth was too far from major population centres for effective peace time operations, especially after tugs and steamers had appeared. Post 1815 they were soon undercut by the private American packets, and ceased running to New York in 1827. They dropped rates to £16 on the route to Halifax in 1834, and ended the service in 1843.²¹



Sources: A. Falmouth Packet Fares – Beck, *Packet Service*, p.146; Pawlyn; *Falmouth Packets* p. 128; National Maritime Museum Cornwall Exhibit; B. Amsterdam to Philadelphia - Indentured Servants and Free Adult Rates – Grubb, 'European

²⁰ Grubb, F., 'European Servitude', pp. 794-824.

²¹ Beck, *Packet Service*, *passim*; Pawlyn, *Falmouth Packets*, *passim*

Servitude...’ p. 818-20. Adams, *Irish Migration*, p.93; C: Liverpool to New York – Hansen, *Atlantic Migration*, p.83; D. Belfast to Quebec; E – Copes – Cope Records..

The indentured, and free adult fares from Amsterdam to Philadelphia developed by Farley Grubb from Philadelphia port records indicate German-Dutch rates to the United States before 1812, and in the late 1810s. The 1772 rate in dollars – not shown here - was substantially lower than in the 1790s, and Grubb estimates the cost of shipping German servants in the mid (18th in peace-time varied between £5 and £10. The indentured rate includes a large premium over the free adult rate because of the borrowing and organisation costs involved. Both rates include meals – which Grubb valued at about 38% of the fare. The Copes and early (19th shippers, did not include food until required to do so by the Passenger Acts in the 1840s – but subtracting food costs brings the Amsterdam rate down to £7.65 – near the average. The high continental rates in the late teens were because of terrible harvests in Europe. However Grubb can not readily explain why these rates continued and worsened in the early 1820s, but suggests it was due to shipping shortages on the Amsterdam route as demand for trade freight increased. Almost certainly however emigrants, travelling independently from Liverpool when transients offered, or formed into large groups by merchants chartering whole vessels, for instance from Londonderry to Philadelphia, or Belfast to Quebec paid far less in the late 1810s. ²²

Copes began taking a few steerage passengers before their packet service proper began in 1822 - summarised in Figure 5 – and their fares of £7 - £8 in the late 1810s look realistic relative to the Liverpool and Belfast fares quoted above. Between 1822 and about 1840, their adult fares fell from £7 to about £4 in line with the averages discussed in Section 3 – See Figure 6 – Cope Westward Steerage Fares. Before 1840, they preferred taking better paying cabin passengers and freight, to low paying steerage, and charged considerably more than transient ships in the trade. However the decline of their cabin and fine freight trade because of steamer competition from about 1840, encouraged them to take more steerage. Brown’s and the captains returned aggregated accounts for each voyage, to Copes in Philadelphia, but although these list many of the costs of selling cargoes and running the ship, they do not unfortunately usually list passengers separately. The annual figures before 1837 are therefore based on a few fares – in 1819 just one - in each year, but they seem to be consistent with the averages. ²³

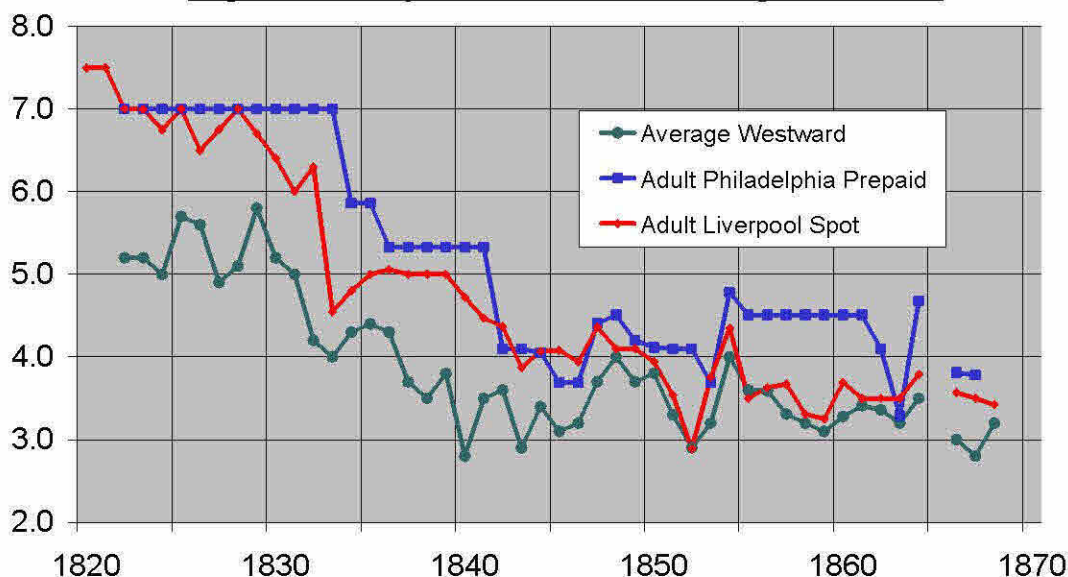
However occasionally before 1837, and nearly always thereafter, the Copes’ captains included detailed lists of all their passengers with their accounts, usually adding fares. In addition, from the early 1840s, Copes, with Brown’s advice, delegated Liverpool spot sales to specialised passenger brokers who also kept detailed passenger books listing all the fares paid. Unfortunately both these usually listed individuals by family or group with totals paid by each family. However it is usually possible to isolate or calculate single adult rates. There was hardly ever a standard rate, probably because of haggling and different berthing, but it is usually possible to identify clusters of single adults with a

²² Grubb, ‘European Servitude’, passim; Hansen, *Atlantic Migration*, p. 83 quotes £10 in 1816 for Liverpool to New York. Adams, *Irish Migration*, p.93, quotes a minimum of £6 for Belfast to Quebec; Cohn, *Mass Migration*, pp. 64-5 surveys the evidence.

²³ The captains carried back to Philadelphia, and the Copes preserved, a large proportion of the letters and vouchers produced by each voyage including bills of lading, tickets etc..

high fare, a modal fare, and sometimes a low fare. Figure 6 shows the modal fare. Occasionally a separate page was marked off as Forward or Second cabin - justifying a marginally higher fare.²⁴

Figure 6: Cope Westward Steerage Fares, £



Source: Cope Records

Figure 6 records Cope prepaid, Liverpool spot, and average, fares. Philadelphia prepaid fares were relatively high, and were typically constant for several years. The Copes dropped the rate when conditions had obviously changed – for instance in the early 1830s and then again in the early 1840s. Purchased several months in advance, they saved the exchange costs and risks of remitting overseas, although families often sent some additional cash - say £2 or £3 - for travel money. The spot fares paid in Liverpool on the other hand reflected current Liverpool market pressures, and the captain's need to fill his vessel, and are more like modern standby fares. Average fares were of course mathematically lower than the individual adult fare in proportion to the number of children and infants carried. All Cope fares fell between 1820 and 1845, but the prepaid fares fell most. In the middle and late 1850s however Philadelphia prepaid fares were considerably higher than Liverpool spot fares, probably reflecting more competitive market conditions in Liverpool²⁵

²⁴ Their brokers included Harndens, Sauls, Byrnes and Tapscotts etc.

²⁵ Prepaid fares gave passengers' access to a choice of several packets - usually six months ahead - so the Irish or English travellers would have time to receive the tickets by mail from Philadelphia, to settle their affairs, and to reach Liverpool a few days before a packet departure. Overbooking and bunching on particular packets - as in modern 'bumping' off aircraft - was seldom a problem because, to a certain extent, the brokers could vary the spot ticket sales, and Browns and the captains, the cargoes. In emergency – for instance if a packet was seriously delayed – the brokers wrote to the migrants. The Passenger Acts specified substantial fines for

6. WESTWARD STEERAGE FARES ADJUSTED FOR WAGES.

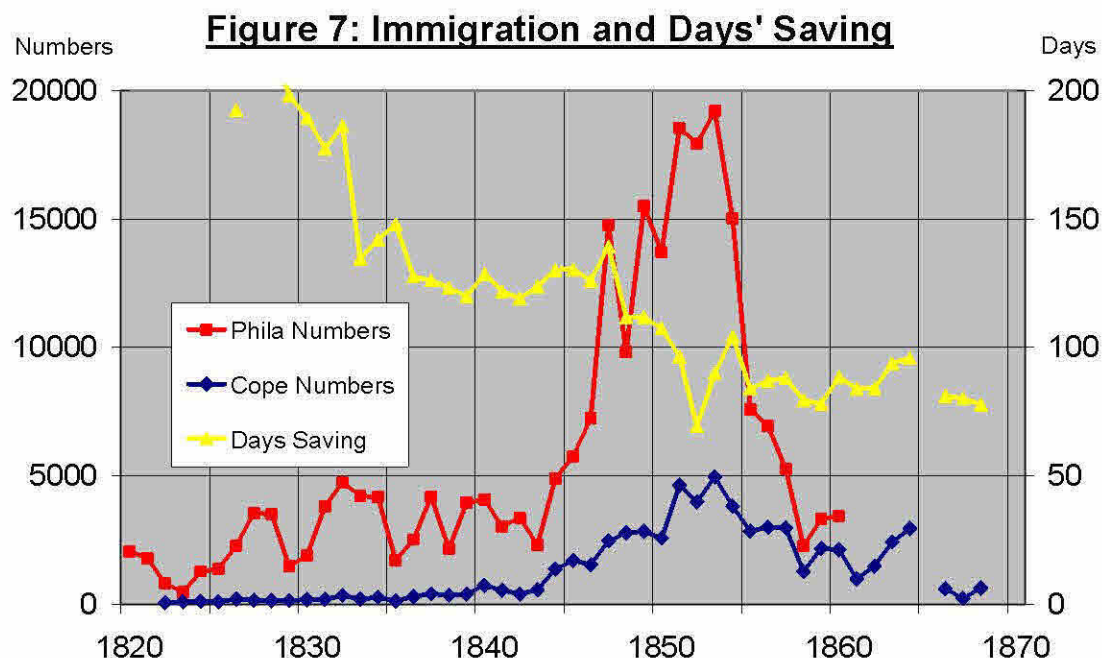
The cost of transatlantic emigration not just absolutely, but also in terms of current income, and reasonable savings, was critical for travel. Later in the century, after transatlantic fares had become a relatively small proportion of income, travel decisions could be made more lightly. However in the early nineteenth century well informed observers agreed fares were so high in terms of income and savings that they deterred many would-be migrants. Hence governments contemplating new passenger acts hesitated to impose extra costs however desirable the legislation seemed. Oliver MacDonagh for instance argues the first rather restrictive British Passenger Act of 1803 only passed because the government had not realistically considered the costs, and substantial migration was unlikely. However in the 1820s when governments began to consider emigration was possible and desirable for large numbers, they reduced the restrictions to a minimum to allow the trade to grow.²⁶

It is possible to quantify this to a certain extent. In the late eighteenth century German indentured servants sailing from Amsterdam to Philadelphia committed themselves to between 800 and 1000 days servitude in America in order to fund their passage, implying a crude savings rate of about 9c a day, or about 12% of the free wages then current. By the 1820s, under free conditions, supposing adults then saved 20% out of earnings, individuals would have accumulated the average fare in 150 to 200 days at a rate of between 15c and 20c per day. The source for wages comes from common labour on the Erie canal from 1828 to 1870 – a reasonable employment for unskilled immigrants. The wages for skilled craftsmen were higher, and for unskilled farm workers lower. The evidence is that this generation of emigrants – especially the Irish – were prepared to work and save vigorously to bring family and friends over. In the 1850s, at that rate, young men could have reasonably saved enough in say 70 to 100 days, to fetch an intended wife or an aged parent.²⁷

detention, but generally the system worked well.

²⁶ MacDonagh, *Passenger Acts...*, pp. 22-73

²⁷ Indentured servants' fares and length of service from Grubb, 'End of Servitude...' 818-20. Evidence of high Irish work and savings patterns come from many sources including Cohn, *Mass Migration*, pp. 65-6; MacDonagh, *Passenger Acts*, 27-31; Beckham, 'Savings Habits of Irish Immigrant Women'



Source: Cope Records.

Figure 7 graphs these costs in terms of total immigration into Philadelphia, Copes' steerage numbers into Philadelphia, and US day's wages saving required to pay adult Liverpool fares. The continuous record of Erie wages in *United States Historical Statistics* (USHS) begins at 71c in 1828, but the USHS notes that it was probable that wages were \$1.00 a day in 1819, and \$0.75 in 1823 (207 days) and 1826 (192 days). 219 days were required in 1828 and 198 in 1829. There was therefore no fall in the labour required to pay fares in the 1820s. The fall in days saving required in the early 1830s was due to the fall in fares from about £6.50 in 1830 to £5 in 1835. Erie wages remained at 75c until 1835, and then climbed to \$1.00 in 1839. This generated some, but not many extra steerage passengers on the Cope line probably because of the line's – and general packet - preference for fine goods at that time. Cohn argues the real turning point in migration was the early 1830s rather than in the famine, and Figure 7 suggests equivalent falls on the cheaper transient ships did generate more passengers into Philadelphia as a whole.²⁸

In the depressed early 1840s fares fell rapidly, but so did prices and wages – so the days required to raise the required passage money actually rose slightly. In 1847, during the first rush of the famine the cost of fares rose more - but not as much as might have been expected given the sudden demand involved. The Atlantic transportation system was large and flexible enough to absorb the strain – even though standards often seemed appalling to contemporaries. The first really rapid rise in Cope's passengers – from 1843 to 1847 therefore was not caused by falling Liverpool fares or rising wages. However prepaid fares – which American relatives would have bought for

²⁸ Erie wages from *USHS*, pp.147-8, 164. Wages of labourers in Philadelphia were higher than on the Erie Canal - \$1.00 in the late 1810s, \$0.75 in 1821-2, and \$1.00 from 1823 until 1830. *USHS*, p.163; Cohn, *Mass Migration*, 47-69.

family in Ireland - did fall faster than wages see Figure 6 – and grew rapidly as a share of transportation finance. Secondly the value of small hoarded savings, probably vital for the immediate pre and early famine emigrants rose sharply as fares and prices both fell rapidly until 1846.²⁹

The most intriguing interaction between fares, wages and savings was during the famine migration itself. Fares and wage-adjusted fares both rose temporarily between 1846 and 1847. However from 1848 until 1852 during the greater part of the migration, wage-adjusted fares fell rapidly, as American wages rose, and fares fell as more ships were built and packet services organised. Undoubtedly most migrants were expelled from Ireland by the famine, but it is reasonable to suppose many chose to go to America because of cheap and available fares. Letters from Pennsylvania Irish to relatives in Ireland pleading for them to come, suggest they could just manage to pay the fares, and send some additional travel money.³⁰

In 1852, Copes fares fell to their lowest level ever, and wages on the Erie canal reached a dollar a day for the first time since 1839. The number of days work required to fund a single adult fare declined from 131 in 1845 to 69 in 1852. The first steamers entered the Liverpool to Philadelphia route in December 1850, but the Passenger Lists suggest they carried higher class passengers at higher rates and did not compete directly with Cope's steerage service. Cope's captains complained of weaker demand in 1852. The peak of Irish immigration to the United States - 220,000 - came in 1851, but fell in 1852 to 159,000 as the pressure from the famine declined. However the low 1852 fares probably encouraged higher continental migration in 1852 and 1853. Brinley Thomas quotes effectively from the *Sunday Times* of April 4th 1852. "During the forthcoming season, large transshipments of continental emigrants via Liverpool to New York are expected, caused by the low fare from that port. From Bremen to New York is about £6, while from Liverpool the charge is only from 50/- to £3. Bodies of emigrants from Coblenz, Hamburg, Leipsic, etc. have arrived and departed from Liverpool during the past week. Their general appearance and demeanour contrasts strongly with the masses which have previously departed in such large numbers from Ireland".³¹

7. TRAVEL CONDITIONS. MORTALITY..

The effects of declining fares, 1820-1860, were amplified by considerable improvements in sailing ship quality. The Copes like the other leading packet companies ran reliable scheduled ships. Prior to 1845, they were forced to maintain good standards by the demands of cabin passengers and high quality freight shippers, and the small numbers of steerage passengers were beneficiaries. Obviously steerage was never comfortable and facilities were primitive. Passengers for instance berthed collectively, and had to

²⁹ Edwards and Williams, *Great Famine*, and Van Vught, 'Running from Ruin', comment on the substantial proportion of small farmers with some savings in the early migration.

³⁰ Copes' archives contain thousands of prepaid tickets mailed from Philadelphia to relatives, surrendered to Liverpool brokers in return for legal contract tickets, and returned to Philadelphia by the captains. Letters on the reverse often claim how hard bought the tickets were.

³¹ Thomas, *Migration and Economic Growth*, p. 96. Thomas ascribed the secular increase in migration to long run population growth and declining fares - from say £20 in 1825 to £3-4 in 1863, and to steam navigation. This overestimates the 1820 fare, and misses the abrupt declines in the early 1830s and late 1840s.

provide their own food and bedding. However most passengers were used to tough home conditions in England and Ireland, many praised the line, and very few died en route pre 1845.³²

The huge increase in emigration after the Irish famine threatened to overwhelm the service - but although all lines, including the Copes, suffered some serious episodes, Raymond Cohn's recent research concludes, 'the immigrant voyage across the Atlantic before 1860 was among the safest sailing voyages in the world'. Copes' death rate was especially low. Simultaneously the British Passenger Acts, imposed progressively more vigorously from 1842, due to a few well publicised tragedies, forced lines to provide basic cooked food, improved accommodation, and simple medical attention, and to maintain and modernise their ships. The actual value of the fare therefore increased substantially. The authorities however knew in the early years of the famine that they could not press the shippers too hard, or fares would rise beyond the capacity of the poorest Irish emigrants, and they dared not check the flow.³³

By the early 1850s however some of the worst effects of the famine were over, a substantial part of the poorest peasants had emigrated to England or North America, and many had died. Farming conditions and wages for the remainder in Ireland improved sharply as farm sizes increased. Hence in the last three Passenger Acts in 1851, 1853 and 1855 the government pressed much harder on the shippers forcing up costs. Irish migration recovered in 1853 before its headlong decline from 1854, but German migration increased until 1854. In 1853 Cope's passenger traffic and fares recovered and peaked for the last time. The Copes carried an increasing proportion of the immigrants into Philadelphia – See Figure 7. They were able to sustain high prepaid rates in 1855 and 1856 – see Figure 6 - despite falling demand because of the Crimean War, but they were hard hit by the depression in 1857. Tougher regulation also drove out many of the lower quality transient ships, and hence in the late 1850s the Copes had a relatively strong position in a much smaller trade. The Inman Line left Philadelphia for New York in 1857 – after the depression had weakened steamer competition there.³⁴

8. CONCLUSIONS:

This paper has developed eastward and westward fare and passenger number series for the first time using the unique Cope archives in Philadelphia. This hopefully will fill in a major gap in transatlantic statistical information. These series show fares fell rapidly after 1820 in three major phases – in the early 1830s, in the early 1840s, and from 1848 to 1852. Corrected for wages, the major declines were in the early 1830s and from 1848 to 1852. The Cope passenger lists reveal surprisingly high eastward return migration in the early 1840s and middle 1850s, and comparison with fares suggests the 1840's movement, at least, was encouraged by low fares. In the middle 1850s, by contrast, the eastward flow was sufficiently strong for Copes to raise eastward fares higher than westward. The westward flow was also encouraged during a large part of the famine

³² Cohn, *Mass Migration*, pp.137-54. The US Passenger Lists - which were obliged to report passenger deaths, and the captains; letters to Copes, show very few steerage passengers died on Copes' ships prior to 1845.

³³ Cohn, Raymond L., 'Passenger Mortality', p.19; MacDonagh, *Passenger Acts*, pp. 22-53.

³⁴ MacDonagh, *Passenger Acts*, pp. 222-65.

period by rapidly falling fares and transport costs. Simultaneously rising wages enabled established Philadelphia immigrants to bring over relatives and friends more readily. The Copes continued their steerage passenger trade until 1869, but the major impact of sailing packets like Copes was completed by the mid 1850s.

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APPENDIX: THE UNDERLYING CHART STATISTICS WILL BE ADDED AFTER CONFERENCE DISCUSSION, AND WHEN FURTHER CHECKED FOR JOURNAL SUBMISSION.