

民國叢書

第一編
· 19 ·

社會科學總論類

中國人口問題
人口問題

中國社會學社編
陳達著

上海書店

人口問題

陳

達著

本,書據商務印書館1934年版影印

序

自有史以來，思想家對於人口問題往往有片斷的討論。到了近世，學者對於人口問題的興趣愈覺濃厚：或以爲人口是人類最根本的問題；或以爲人口是社會科學裏最根本的問題。英國著名經濟學者克恩士（J. M. Keynes）在雷德（H. Wright）所著人口（Population）一書的序裏說：(1)

『著者要算達到目的了，如果他再能引起多少人對於人口問題的注意：因於最近的將來，人口不僅是經濟學者的問題，將要變成最重要的社會問題，這個問題可以惹起人類最深奧的本能的反應與情感。且人類對於這個問題所表現的情緒，可與早年對於宗教戰爭一樣的任性的。人類的歷史將起始有一個大轉變，如果文明人對於他的將來，自己預備實行有意識的控制；不和以前一樣，採用盲目的天然淘汰。』

人口學者因興趣與觀點的歧異，顯示不同的研究途徑。有些人注重人事登記，那就是統計的工作，大致屬於統計學的範圍；有些人注重人民的社會與經濟幸福，那就是職業分配，生產技術與生活程度的研究，大致屬於經濟學的範圍；有些人注重心理與社會的要素，那就是遺傳環境與文化的分析，大致屬於社會學的範圍。但社會

(1) H. Wright: Population, London, Nisbet, 1923

學者往往採取綜合的態度，與其他社會科學者相比，有較廣的觀點，因此社會學者大致可以利用前述二類學者的貢獻，並容納其觀點。

社會學者既有較廣的觀點，所以對於人口問題亦有較深的興趣，其興趣可分兩個相輔而行的方向，即理論與實際。社會學者對於人事登記的各方面是有興趣的，對於人事登記的意義是有興趣的，今舉例以明之：人口的地理分布，是一個事實問題，但形成人口密度的原素，即有理論的基礎；生育率與死亡率的記載是事實問題，但關於高（或低）生育率與高（或低）死亡率的解釋，即理論的探討；文明與野蠻是事實問題，但關於文化的解釋，有理論分析的必要。社會學者研究每種重要的人口事實，以便得到適當的解釋；並研究相關的人口事實，以期了解人類的整個行為或其重要部份。

人口問題的研究，須要採用科學方法，特別是下列各點：（1）事實的搜集，（2）事實的整理與分類，（3）解釋，結論或假設，（4）證誤。人口的研究既以事實為基礎，所以證誤是比較容易的；既以結論或解釋為指歸，所以學理的發現或證明是有可能的。因此人口問題的分析，是社會學者應有的嘗試。此種研究或可引導社會學入於實際科學的正路。

我國社會學者對於人口問題應有適當的注意，除普通理由已如上述外，尚有特別原因可以簡叙如下：我國人口對於世界人口佔有重要位置，因此人口的研究，顯然含有國際的重要性。不但如此，人口事實對於我國的政治經濟與社會生活有多方面的關係；我國在

過去因缺人口的準確資料，所以國家的重要政策，不論對內與對外，往往缺乏穩實的基礎。自今而後，國事日急，社會現象日繁，人口事實的需要，當較往日為急切。我國於最近的將來，應切實研究人口問題，以便推行政治的經濟的與社會的改革和建設。

著者自民國十三年起，於清華大學授課時，在社會學原理中注重講授人口理論；自十五年以後，將人口問題另立一課。每年搜集材料，編印講義；經幾次修改，漸成系統。於民國二十一年春，起始材料的組織，逾二年乃成本書，其內容注重人口問題的普通方面，但於可能範圍內，介紹並討論我國的人口資料。

本書的主要用處有二：（1）參考書，（2）大學校教科書。如本書被採為教科書時，著者有以下的建議：每章末部所列問題，可以引起學生對於每章內容的興趣及進一步的研究，因此學生每人須先答每個問題，並將答案交於教師，以備上課時互相討論之用。當教師講授第一編第一章時，學生應預備第二章的答案，待第一章講授完了時，答案已經教師評閱，課堂中即開始第二章的討論，同時學生預備第三章的答案，以此類推。教師可以修改問題的內容，可以增加問題的數目，或增加他種的參考資料。本書附有參考文獻提要，（附錄三），就中所列文獻，有些是補充各章所論的，有些是與本書的觀點不同的；凡此都可以啟發學生的思想，希望教師充分利用之。

學問是無止境的，著者對於人口問題雖甚感覺興趣，並有若干年的努力，但因問題的性質複雜，且因著者的學識與閒暇都受限制，

對於本問題愧未能有精深的貢獻。本書不過是研究進行中的一個工作報告，著者的努力是繼續前進的。書中謬誤，如蒙國內學者隨時匡正，不勝感盼。

對於著者幫忙的人數甚多，勢難盡舉，今擇其要者如下：（1）對於本書供給一部份材料者有華洋義賑會章元善先生，上海鴻英圖書館，平民教育促進會李景漢先生；（2）對於本書搜集或整理一部份材料者有助教倪因心先生，史鏡涵先生；（3）對於本書評閱全部或一部者有陳長蘅先生（南京立法院），陳華寅先生（南京統計局），許仕廉先生（南京實業部），孫本文先生（南京中央大學），章善元先生（北平華洋義賑會），吳澤霖先生（上海大夏大學），潘光旦先生（上海光華大學），吳文藻先生，趙承信先生（北平燕京大學），王士達先生（北平社會調查所），趙人儂先生，吳景超先生，陳植先生，袁復禮先生（清華大學）。上列各位評閱者指出許多錯誤，著者不勝心感；但本書各種缺點，當由著者負責。

本書一部份材料已在別種刊物發表，如（1）清華學報（第八，九，十章）；（2）社會學刊（第十八章）；（3）人口副刊（第十五章）。但已發表的各章，已經著者重寫或修正，並已得上列各刊物的允許，將這些材料編入本書，著者對於上述各刊物表示謝忱。

本書全部的校對除著者外，由趙人儂教授吳景超教授倪因心助教史鏡涵助教幫忙，著者心感不盡。

中華民國 23 年 6 月 18 日，陳達序於北平清華大學。

HUMAN WELFARE AND THE GROWTH OF CITIES

BY W. S. THOMPSON

All over the world cities are growing rapidly. Each year they claim a larger proportion of the population of practically every country. Furthermore up to the present it appears that the larger cities grow fully as fast as or even faster than the smaller cities. There seems to be no limit in modern days to the size to which they can grow and indeed to which they are likely to grow if present trends are at all indicative. The question I would examine here is: What effect this continued growth of large cities is likely to have upon human welfare?

I would not be misunderstood. I think that the increase in urban population is a natural movement under the conditions in which we live. Indeed as far as I can learn from history man has always lived in cities to the extent that he could support himself there. If China, Russia and India have only 15-20% of their populations in cities, while England has 80-85% and we in the U. S. have perhaps 55-60% it is not because we in the West are more inclined to live in cities than are you in the East but merely because our form of social organization enables us to support a larger part of our population in non-agricultural occupations which are carried on in the cities than does yours. Always and everywhere men live in the cities to the extent that their economic organization permits them to separate themselves from the land.

Until the advent of steam as a factor in human affairs, however, comparatively few men lived in cities, as is the case here in China today, and the cities in which they lived were for the most part small when compared with the largest

of our modern cities. Before the days of steam transportation I very much doubt whether any city, at any time, anywhere, had more than one million inhabitants. Even the great cities of China where water transportation has been excellent for many centuries probably did not pass this mark until quite recently. The physical difficulties of provisioning and organizing a large city on the basis of man and animal power alone were very great and it is not surprising that very few cities at any time in human history have passed the 100,000 mark.

Besides until quite recently the agricultural practices all over the world have been so inefficient when measured in terms of the labor required to produce the mere necessities of life that only a very small proportion of any population could be spared from the tillage of the land for the occupations carried on in cities. This has probably been the chief factor in determining the proportion of the population living in cities ever since man passed from the pastoral and hunting stages of social organization into the settled life of agriculture. It was the conjunction of a genuine agricultural revolution with the industrial revolution which made possible the growth of cities in modern times. Inasmuch as this growth of cities has been accompanied by an improvement in standards of living we have come to look upon the city as an unmixed blessing and have not really begun to ask ourselves what is the human significance of the modern city. In our eagerness to prove that we can construct and operate huge cities we have failed to pay adequate attention to the ways in which human life is being affected by them.

In general it seems to have been taken for granted that once the engineering problems of the large city are met all will be well. Apparently we consider it proof of our success in achieving the "Conquest of nature" that we can crowd millions of people into a very small area and provide them with the necessities, nay more, many of them with the luxuries,

of life. Furthermore in some inexplicable way we have come to identify the hugeness of our cities with the attainment of a high quality of living so that the man who lives in the great city looks down with a mingling of disdain and pity upon the man who lives in the small city or the village, while the main in the greatest city looks upon the man in the merely great city in the same way.

We have also come in some mysterious way to believe that the great city is the favored, if not the sole, dwelling place of our new god "Efficiency." It is no exaggeration to say that a very considerable part of our people believe that there is some virtue in mere size which leads to greater efficiency among the people who dwell in great cities and which also attaches to the great enterprises carried on in them. It should need no argument convince anyone that there is no necessary connection between the size of a city and the efficiency with which men do their work. It is possible that men do work more effectively in great cities than in smaller cities and villages but it is time that we began to ask for facts and to consider whether the advantages of great aggregations of men have not been assumed rather than proved even when only the economic aspects of the case are considered. When the larger human aspects of living are taken into account there is little doubt in the minds of the more thoughtful people that the great city has many disadvantages as compared with the smaller city and even the village, for the vast majority of the population.

I would, therefore, examine with you very briefly some of the aspects of living in large cities which have been too little discussed up to the present time. It seems to me that it is especially fitting to discuss these matters here at this time. For assuming that the period of anarchy and civil war in China, consequent upon the overthrow of the ancient monarchy, is drawing to a close there can be little doubt that moderu

industry will make rather rapid and steady progress here, and with the development of machine industry will come the development large cities. Already Shanghai claims to belong among the 5 largest cities of the world and Tientsin is growing at a rapid rate as are a number of other cities. But since China is just entering upon the development of modern machine industry her population movements have not yet been much affected by the cityward movement which will inevitably accompany this development. There is time, therefore, for China to plan and direct the movements of her population if it seems wise to do so; and it is my belief that the experience of the countries which have preceded China in this new industrial development indicates that it would be wise to do this.

More and more there is reason to doubt the value of the modern great city both from the economic and social standpoints. From an economic standpoint it begins to appear that it is probably not the efficient economic organism it has been, and is yet, generally supposed to be. It has been formed, for example, that the noise of the great crowded offices which are made necessary by high rents may reduce the efficiency of the clerks working there as much as 20% or even more. It has also been found that the costs of producing many kinds of goods are greater in the large cities than in smaller places because the costs of living at any given standard are generally higher in the large cities than in the smaller places. The reasons why the costs of living are higher in the large cities cannot be gone into in any detail here but it may be pointed out that after a certain size is reached it undoubtedly costs more to install additional facilities in large cities than in small. Thus a new water main of a given capacity, a new electric line, a new telephone exchange &C. &C. undoubtedly cost more to install in New York or Chicago than in Cincinnati or Atlanta and more in these latter places

than in Asheville or South Bend. This necessary means a higher cost of doing business in the larger places unless this can be offset by a larger volume of business. No doubt in some businesses, particularly in those which serve a large clientele, local or national, the volume of turnover is frequently so increased by being located in a large city that the profit is greater there than it would be if conducted in a smaller place; but it is also quite clear that a very considerable part of the business in any community cannot escape these higher costs per dollar of turnover. This is, therefore, one reason for the higher cost of living. High rents, particularly for the workers are another important factor in the higher costs in the large cities.

Perhaps the best proof of the uneconomic character of the large city for certain purposes is found in the fact that manufacturing, in which it is comparatively easy to allocate fabrication costs to each unit of product, is steadily, if slowly, moving away from the larger cities. Every year sees a considerable number of factories moved from the larger cities, while new plants are more and more being located in smaller communities. Thus the proportion of the workers in the large cities who are engaged in manufacturing declines.

"But why," it will be asked, "if this is the case, do these cities keep on growing?" The answer is that the overhead organization of business has not yet felt the pressure for the reduction of costs in the same measure as the actual production processes. This is undoubtedly one reason why the overhead of business is increasing faster than the physical turnover and is steadily absorbing a larger part of total operating expenses. Thus the large cities keep on growing because there is as yet no very considerable movement to decentralize the office end of business.

It will not be possible to go into much detail in discussing the reasons for this condition. It appears that the general

managers and financiers who generally prefer to keep their own offices in the large cities are very reluctant to let the office decentralize and move out in the same way they are willing to allow the manufacturing facilities to decentralize and move out to low costs areas. This is probably a more or less unconscious reflection of the fact that far more progress has been made in the scientific handling of production problems than in the handling of the problems of distribution. Hence many men feel that the machinery for distributing their products must be kept where they can supervise it very closely.

But I believe that the greatest reason for the growth of centralized overhead organizations in the great cities is that many, perhaps most, of the financiers and general managers are still living in the steam age and have not yet graduated into the electric age. What I mean is that the influence of steam as a direct motive power has been so great and so all-pervading up to the present time that the economic organization it made necessary is still the dominating factor in business organization even though it is in process of passing off the stage as the direct motive power in modern industry and has certainly been quite superseded by electricity and the gas engine for many purposes.

I shall enlarge a little upon the qualities of steam and contrast them with electricity and the internal combustion engine because I believe that once these contrasts are fully appreciated we shall develop quite a new type of industrial and commercial structure and one which will make possible a more satisfactory type of living for the majority of non-agricultural workers than we have hitherto developed in our steam-built cities.

Steam must necessarily be consumed within a short distance of where it is made. Since it can also be produced more cheaply in quite large quantities it is not surprising that the size of

individual factories tended to become greater and greater as they found it possible to dispose of more and more products. It is doubtful if it ever occurred to most successful factory owners until rather recently that it would be better both economically and humanly to have another factory at a different place rather than to add a new unit to the one already in operation. Naturally great cities grew up about the important factories which in turn grew up about steam plants.

Now electricity in contrast to steam can be distributed over a comparatively large area very cheaply and can be used in small units almost as cheaply as in large units. As a source of power it is far more flexible than steam and it puts the small and the large factory on almost equal footing as regards costs of power. It also makes it unnecessary for the small factory to invest a considerable sum in a power plant if there is some central station with which it can connect. It is possible then that with electricity supplanting steam as the direct motive power of industry both the location and the size of the most economic plants will be different from what they have been in the steam age. This is certainly a possibility of which account must be taken.

But if electricity is likely to affect the organization of the processes of production directly it is of still greater importance indirectly as a means of rapid and instantaneous communication. Electric communication is such an improvement for many purposes over the letter carried by steam, that it makes possible a whole new structure in our business world. It is just at this point that it seems to me most of our business men do not realize what electricity really means. They do not seem to realize that offices and overhead organizations as well as plants can now be decentralized and located wherever it may seem good and yet close control can be exercised over them at all times. Indeed in many respects it is far easier for a New York bank to supervise its branches in China today than

It was for it to supervise its branches only a few blocks away thirty or forty years ago. I do not believe I exaggerate when I say that most business men have not yet begun to grasp the possibilities of electric communication as a factor enabling them to reorganize their business for greater efficiency and to secure better living conditions for the office workers. There seems to be a very widespread feeling that to decentralize the plant or the office work and break it up into smaller units will be a backward step in the organization of our economic life; that size and efficiency vary directly together, the larger the unit the greater the efficiency. There is, of course, no necessary connection between these two factors once the units are large enough to perform any particular operation effectively. Nor does the breaking up of a business structure into smaller units necessarily mean more and smaller businesses. It simply means a new form of organization based upon the full use of the latest technical aids to efficient control. In the days when communication was slow and difficult it was of obvious advantages for the owners and managers to be in close physical proximity to the plant as well as to all the accounting and overhead organization. Today with cheap, efficient and instantaneous communication possible over long distances there is no longer any need to crowd all of a production into one huge plant nor all of the overhead into one huge office as so many of our big corporations still do. They are simply living in a world which is leaving them behind. So much for the economics of the large city.

It is also becoming more and more evident that large cities make comfortable living almost impossible for the vast majority of the people. Even the well-to-do who need not toggle over a few dollars in rents, or in transportation costs, or on their food bills, feel that they are oppressed by constant crowding and that they could actually do better work if they lived in smaller places where they did not have to spend so much time in avoiding unpleasant contacts with their fellows and where

the noise and dirt and bustle were less wearying. As for the great mass of workers who at all times barely manage to get along, who are always badly crowded and who have no chance to get away from irritating contacts with their fellows even for a few hours in the evening, there can be no reasonable doubt that they would be more efficient workers if they lived in smaller places where they could have better housing, more open spaces for recreation and easier transportation to and from work. For a given income the smaller city generally gives the average worker a larger return in comfortable living than the large city. Many people realize this and yet little is being done to make it possible for the workers to live under these more favorable conditions. The inertia of mind induced by the steam-age thinking is so great that we are being carried on in the direction it gave us although we know it is not the most desirable direction.

There are large areas in the world of which China is one of the greatest which are not yet industrialized and which should, therefore, study carefully what has happened elsewhere so that they may direct their development into the best possible channels. It would be a pity if China, India and Russia as they develop the factory system of industry were to make the same mistakes which were made in the West. To merely repeat the experiences of the West would mean a very considerable delay in the improvement of the life of the masses of the people which is after all the only reason for changing the present system of economy. I have not the least doubt that these Eastern lands can avoid many of the mistakes made in the West if they will resolutely set themselves this task. One of these mistakes I am convinced is the large modern centralized city. It does not offer to more than a very very small proportion of its people any advantages beyond what they could yet elsewhere and from perhaps 95% it takes a heavy toll in that it makes comfortable living impossible for them.

Let us glance for a moment at some of the things we would covet for ourselves and our children and see how much better or worse the large centralized city will supply us with them than the smaller city or even the fair-sized village.

I presume we would all covet good health for ourselves and our families. The facts regarding the death rate in Western lands show very clearly that the small city people enjoy better health than the large city people, in spite of the fact that the best specialists practice almost exclusively in the large cities. It seems quite probable too that the people in the small cities and towns once they learn how to organize for health can still further increase their advantage over the large cities in this respect.

Again I presume we should all like to have good educational facilities available to our children. Now there is apparently no reason why any group as small as 2000 or 3000 cannot have schools which are quite adequate for the majority of the population. Specialized schools must, of course, have a larger body of constituents and some of these, art schools for example, probably cannot exist outside of the large cities; but after all these are not necessary for most of us. Certainly the city of 25,000 to 75,000 can have entirely satisfactory schools for all but a negligible proportion of its people if it cares for them.

As to housing and open places for recreation and the chance to get out into the open, the small city, of course, has a decided advantage over the large city and this, in turn no doubt, affects the general state of health among the small city dwellers.

In the matter of libraries even the city of 10,000 can have a good workable library if it cares for it. Such a city cannot have a library highly specialized in all lines, but this will not usually prove a serious handicap to the comfort, culture and enjoyment of life of most of the people. Those few people who do feel the need of highly specialized libraries can probably