The Value of Addresses

Merry Law
Editor
Guide to Worldwide Postal-Code and Address Formats

Contents

This paper was made possible through the proud support of grayhair™ software inc.

GrayHairSoftware.com

About the author

Merry Law, president of WorldVu LLC, oversees their publications and worldwide marketing programs. She is editor of the authoritative *Guide to Worldwide Postal-Code and Address Formats* and author of *Best Practices for International Mailings*. Merry is a member of the Universal Postal Union POC Addressing Work Group and of the U.S. International Postal and Delivery Services Federal Advisory Committee. She can be contacted at mlaw@worldvu.com.

About the sponsor

GrayHair is an industry leader in the development of critical services that improve business mail, including Intelligent Mail® barcode assignment, mail tracking, address quality, presort analysis, postage reconciliation, mail monitoring, consulting and global mail services. GrayHair offers direct marketing consulting services through its GrayHair Advisors division, which provides independent guidance on strategic issues. For more information, visit www.GrayHairSoftware.com and www.GrayHairAdvisors.com.

Introduction

Addresses not only have value; addresses have multiple values. We all appreciate some of these values: finding a friend's home or a colleague's office, delivery of mail and packages to homes and offices, allowing for emergency services to quickly find a location, and so on. For businesses, addresses permit the creation of customer and prospect databases, the rental of mailing lists, and simplify billing and other transactions. For governments, addresses help describe service areas, identify properties for taxation, and assist registrations for voting, business licenses or driving permits. This is by no means an exhaustive list of the values derived from or permitted by addressing.

There has been an increase in the types of addresses, as technology has expanded the ways an address can be defined. Address might include postal, GPS, Internet, email, mobile, and others. While all of these addresses have value, this paper will discuss postal addresses. Some of the comments on value, particularly those for private businesses, will also apply to other types of addresses that might be gathered by companies regarding their customers.

In looking at the ways in which postal addresses have or provide value, those benefitting can be broken down broadly into the following groups.

- Postal services (also called postal operators)
- Private businesses other than above
- Government entities (other than postal services)
- Civil society
- Individuals

Individuals benefit directly and indirectly from many of the advantages of addresses and addressing systems. An individual may have a house worth more or less or may pay higher or lower taxes due to the address. The opinion of the resident and others will be affected by the address's location – its prestige or lack of it – but the addresses *per se* does not have an economic value. The location described by the address holds the value. This type of address value will not be covered further in this discussion.

Some of the social, government and business benefits of addresses do have economic value. The economic value of some addresses, such as business customer and prospect lists, has been long recognized. What's new is the interest in placing a monetary value on addresses in other contexts. Recently there has been increased interest in the economic value of postal address files created and maintained by postal operators or governments, both in terms of their monetary value and the benefit they provide to a country's economy.

Before going further, it is important to note that addresses have little value individually. The collection of addresses in a database or file or list may have value, whether that collection of addresses is held by a company, a postal operator or a government entity. That value is dependent on a number of factors and can be interpreted in a number of ways that will be discussed in this paper. Of the factors affecting value, quality is most important. In fact, too many "bad" addresses – incorrect, incomplete, or undeliverable – can reduce the value of the remaining addresses in a database or list. Addresses should ideally be complete, correct, and current, reflecting that the addresses contain all the necessary information for delivery at the time any item is mailed to them.

The systematic addressing of a community – anything from a settlement to an entire country – will have economic and social value. The economic can be apparent – increased employment, more access to banking and other financial services, increased business registration – but difficult to value monetarily. The social benefits may be still more difficult to evaluate in economic terms. The attempts to do so are few and without established standards. It is, however, worth examining the social advantages as they can have a profound effect on the economic health of a community.

What becomes most apparent when talking with experts and reviewing the limited literature on the value of addresses is the multitude of ways in which address systems contribute to a strong society and positive business climate.

Basic Information to Understand the Evaluations

It is evident that value has more than one meaning when discussing addresses, or most other items. Value refers to something's monetary worth or worth in exchange for other goods and services or, in non-economic terms, to its importance or utility. We are more concerned here with the economic value of addresses. Fortunately, economists and accountants have created very sophisticated methods of determining or assigning a monetary value to things that do not appear to have an intrinsic monetary value, such as intellectual property. In particular, two concepts are useful to this discussion.

Addresses (and Postal Service) as Public Goods

The concept of public goods was introduced by the economist Paul A. Samuelson in his 1954 paper *The Pure Theory of Public Expenditure*.[1] The concept has been further developed by Samuelson and others and expanded, notably by Inge Kaul, with the concept of global – or international – public goods.

Public goods are defined as non-rivalous (sometimes called non-competitive) and non-exclusionary. Non-rivalous means that use by any individual does not reduce the availability or quality for another individual. Non-exclusionary means that an individual cannot be excluded from the use of the goods. Further, there can be pure and impure public goods, where the public goods are pure if they completely meet the criteria of non-rivalous and non-exclusionary and impure if they partially meet the criteria.

Traditional examples of public goods are clean air, which is breathed by everyone and people cannot be excluded from using it, or national defense, which protects everyone within a country and is not diminished by additions to the country's population. Impure public goods can be subject to problems with either criterion. For example, public roads are available to anyone for travel but their condition deteriorates with use and free public television is subject to the possibility of restrictions on its use, such as those for pay-to-view cable services.

Since it is impossible to exclude anyone from using pure public goods, private business – driven by the need to make a profit – are usually unwilling to provide them. For those that are considered essential by a community (whether a town or a country), the government must provide the goods or services for them to exist. With impure public goods, the arguments are less clear since it may be possible for private businesses to provide them profitably. The discussion then revolves around whether these goods or services should be provided equally to all within the community by the government.

Postal service is defined as an "impure public goods" in Todd Sandler's essay in the United Nations Development Programme-sponsored work *Global Public Goods; International Cooperation in the 21st Century*.[2] There is general agreement that this is the correct classification within the taxonomy of public goods. Whether governments decide that postal services and addresses are public goods or that they should be provided by the private sector will have many consequences. Many EU governments are wrestling with the questions of how to "liberalize" their postal services and how to handle address files previously held by government-run postal operations.

The non-rivalous nature of addresses also has implications for calculating their total value. An address's value does not decrease as it is used within extremely broad limits. The use of an address or a group of addresses by government, by utilities, by postal and delivery services, and by private businesses does not decrease the value of the address or addresses to the other users.

A brief, but more thorough, discussion that focuses on public goods and postal addresses can be found in the UPU's paper "Addressing the world – An address for everyone".[3]

---

[1] Samuelson, Paul A. (1954) "The Pure Theory of Public Expenditure". Review of Economics and Statistics 36 (4): 387–389.

[2] Kaul, Inge, Gruenberg, Isabelle, et al. (1999) *Global Public Goods; International Cooperation in the 21st Century*, Oxford University Press, p. 25.

[3] Universal Postal Union (2012) "Addressing the world – An address for everyone", Bern, Switzerland: Universal Postal Union White Paper, pp. 22 – 27. http://www.upu.int/fileadmin/documentsFiles/activities/addressingAssistance/whitePaperAddressingEn.pdf

Addresses as Intangible Assets

From an accounting point of view, addresses are intangible assets. (Addresses as a collection are considered, not individual addresses.) Intangible assets have no physical form but do have value: intellectual property (copyrights, patents, trademarks, business processes, and so on), reputation (for honesty, ethics, safety, or other positive attribute), goodwill, etc. Intangible assets can be created internally or purchased. Software and databases are intangible assets.

Theoretically, intangible assets are evaluated in the same ways as tangible assets, which have physical form, like buildings, machinery, land, and product inventory. The most common methods used to value assets are their market value, their original cost less depreciation, or the cost of replacement. In practice, practical difficulties exist in evaluating intangible assets. They are not often sold separately from the other assets of the company that owns them. The original cost for some intangible assets may be difficult to determine and ongoing maintenance and improvements must be taken into consideration. Finally, no replacement may be available or equivalent to a particular intangible asset.

Intangible assets are subject to different criteria for determining whether they can be considered an asset on a company's accounts depending on where they are located (i.e., owned or housed or controlled). Local laws, regulations, accounting standards, and precedents that apply vary between countries (and perhaps within them) but some basic similarities exist. In general, to be valued in accounts, an intangible asset must be identifiable and describable, be subject to ownership and be transferable, be controlled by a person or company, and have future economic benefits to the owner.

While intangible assets may have value to a company or to government entity, they may not meet all the criteria for listing in a balance sheet. Since we are more interested in the value of addresses than in specifics of accounting practices, we will assume that the address files discussed are identifiable and describable databases or files, that they are owned and controlled by a single entity (which may contract for the maintenance or other services), and that they have economic benefits that will continue into the future. Specific economic benefits will be considered below in discussing valuation.

The problems for placing a value on addresses is obvious. Considering addresses in a database or list, a company's customer list with specific purchase information and history cannot be replaced. The original cost of the customer list would be difficult to determine, although the value of the software used to maintain it would likely be known. Finally, since companies rarely sell their customer lists separately from selling the company, the market value would be difficult to determine. Placing a value on a postal file of all deliverable addresses within a country confronts similar problems but on a yet larger scale.

The question, then, is how to determine the value of addresses and address files.

Determining the Value for Addresses

The ways in which the addresses have value and might be valued differ for each of the five general groups for whom they have value – postal services, private businesses, non-postal government entities, civil society, and individuals. Because of the profound differences in evaluating a private business's address files and national address files, these spheres will be considered separately. Although the value of addresses to individuals and to civil society remains largely unexplored, some indications are available and will be discussed briefly.

There have been few attempts to value the address files of postal services and none that attempt to place a monetary value on addresses for non-postal government entities or civil society *per se*. Yet, the value is recognized by the World Bank[1], which has stressed the importance of address systems in those countries that lack them, and by other international organizations. Address systems have become increasingly important. The Universal Postal Union (UPU) launched the initiative "Addressing the world – An address for everyone" and a white paper of the same name.[2]

There are three specific reports that have looked at the value of postal addresses in their respective countries, Denmark, the United Kingdom and the United States. Each finds substantial business, social and monetary value in the portion their system of addressing that is studied but each attempt to place a monetary value is done very differently.

Most of what has been written on the value of address files has focused on private business and the accounting practices that are relevant to them. (Depending on where they are located and their specific legal status, liberalized postal service may now be subject to the laws and regulations that apply to private businesses.) Most of this literature mentions address files in passing and focuses on intangible assets more generally. Further, most of the discussion of databases in the relevant literature is more often concerned with a database of marketable information (such as maintained by a publisher or other information provider) than a database of customer or prospect information.

National Address Files

Depending on the country, what authority creates and approves new addresses varies. It may be local development authorities, a function of a unit of the national government, the postal service, some other government unit or some combination of them. No matter how new addresses are approved, the postal service is frequently the authority on addresses within a country, defining what is correct and deliverable. Ideally, the criteria of complete, correct and current should apply to addresses in a national address file, reflecting that the addresses are also up-to-date.

In those countries with organized address systems, a central file of correct, deliverable addresses is considered a "best practice". These files are used by government entities and private business for a number of purposes, as allowed by national laws and regulations in each country. A postal-address file can, and often is, a source of revenue to the postal service or the government but its benefits extend beyond its revenue production.

Countries without systematic addresses are subject to many problems in postal delivery, as well as other address-related difficulties. They are also much less likely to have a postal-address file that is complete and accurate. The lack of a good national address system leads to multiple problems that can result in economic losses, which will be discussed further below.

Other than the Danish and U.K. efforts, none of the countries with recently "liberalized" postal environments in the European Union (EU) nor their postal operators have attempted to place a monetary value on postal databases. Whether the address files will become the property of the government, as it

---

[1] Farvacque-Vitkovic, C., Godin, L., et al., (2005) *Street Addressing and the Management of Cities*, Washington, DC, USA. WorldBank. http://siteresources.worldbank.org/CMUDLP/Resources/461753-1160058503655/Street_Addressing_Manual.pdf

[2] Universal Postal Union, op. cit.

has in the U.K., Denmark and other countries, or whether it will remain the property of the postal service remains an open question in some countries with a liberalized postal environment. Most of these countries are opting for a single, central address file overseen by a government agency.

The possibility of more than one address system is raised by multiple postal services that do not have access to or use a common file of deliverable addresses. This could undermine the value of each address file and raise some quandaries for governments, private businesses, and individuals in those countries. Thus far, this problem of multiple address systems remains unrealized.

Denmark

In the first study to look at the value of postal address data to a country, The Danish Enterprise and Construction Authority, on behalf of the Danish government, considered the value of allowing access to the address data in their Building and Dwelling Register without charge in 2010. To estimate the monetary value of allowing free access to the address data, the study titled **The value of Danish address data:** ***Social benefits from the 2002 agreement on procuring address data etc. free of charge***[1] looked at the "direct financial benefits to the more than 1,200 parties receiving address data from a Public Data Server (PDS) distributor."

The Building and Dwelling Register is a complete list of all registered (i.e., official) addresses in Denmark. While it contains considerably more information than address data, the agreement was limited to address data and took into consideration privacy issues that might apply to the free-of-charge access to that information.

The study concluded that the direct financial benefits for society from 2005 through 2009 is about EUR 62 million and estimated that social benefits from the agreement will be about EUR 14 million in 2010. During the first period, the costs of the agreement was approximately EUR 2 million with about EUR 0.2 million additional in 2010. About 70% of these benefits occurred in the private sector and 30% in the public sector.

The study lists some assumptions that may affect the accuracy of the valuation. It acknowledges that this value does not include benefits that may be derived by other parties, such as those might receive the address information as it is passed along from those getting directly from a PDS distributor. A user was not allowed to include the data in products for resale before the agreement but can now do so. Arguably, this would increase the value (and the price if it were sold) of the address data and make the value estimate too low. Consider for example the increase in the use of address data associated with GPS location devices. The value of many of these uses would not be included as they are passed along further from the original PDS distributor.

Potentially decreasing the value of address data and rendering the estimate too high is the increasing availability of address data which might lead to lower prices for that data. There are trends that confirm and contradict this. It might also be countered by an increase in updates or uses with the simplification of the process of acquiring the data and the loosening of restrictions on its use in products for resale.

The estimate does includes the savings made by enterprises that no longer need to enter into agreements with individual municipalities concerning the address data and by municipalities that no longer need to handle multiple negotiations, agreements and deliveries of data. The savings attributed to the more simplified process under the free-of-charge agreement were calculated to be approximately EUR 5 million from 2005- 2009.

To estimate the value, the study assumed that the value of the free address information is equivalent to what was previously paid for the address data to the municipalities before the free-of-charge agreement. Using that assumption, the value of all the address data distributed through the PDS was calculated to be

[1] Danish Enterprise and Construction Authority (2010) **The value of Danish address data:** ***Social benefits from the 2002 agreement on procuring address data etc. free of charge*** Copenhagen, Denmark. www.adresseinfo.dk/Portals/2/Benefit/Value_Assessment_Danish_Address_Data_UK_2010-07-07b.pdf

EUR 76 million. But the report states, "To take account of the uncertainties mentioned above [and discussed here above], and to incorporate the prudence principle, the assessment reduces the calculated value of the address data by 25% so that only 75% is included in the results i.e.: (75% x EUR 76 mill.) = EUR 57 mill."

In addition to the calculations of monetary value, the Danish Enterprise and Construction Authority acknowledged that there are other values to Danish society and the individuals in Denmark from the current system. These additional benefits include the decreased need for and expense of duplicate data collection and the ease of reporting and correcting errors in the address data, which taken together should lead to more accurate data. Because of the low cost (free-of-charge), data in various systems can be updated more frequently, further increasing the accuracy as changes occur. Updates are simplified by the single standardized data format. In turn, emergency services such as police, fire and ambulances have the same, and presumably more accurate, data.

Not all the potential uses and benefits of the agreement expected in 2002 had been met when this paper was written in 2010. The further realization of those potential uses would increase the value estimate of the address data. (There has been sufficient satisfaction with the success of the free-of-charge agreement for address data that the Danish government is expanding the concept into other areas.)

United Kingdom

In 2012, the PAF Advisory Board published *Estimating the Economic Value of PAF®*, a study estimating the value of the Postal Address File (PAF) maintained by the Royal Mail.[1] The economic value discussed is the direct value to the economy of the United Kingdom, not the more narrow value to Royal Mail. This broader analysis takes the attempt from an accounting exercise for Royal Mail's benefit to one of broader interest. This is consistent with the broader role of the PAF Advisory Board, which is an independent group created to advise the Royal Mail's Address Management Unit on behalf of PAF users, both in the public and private sectors.

The PAF contains about 28 million postal addresses and receives around 1.5 million updates a year and its purpose is to support postal delivery. Unlike the Danish Building and Dwelling Register's purposeful consolidation of address information in Denmark, the PAF's role as the default listing for address in the United Kingdom was unplanned. The file was originally, and remains, a master listing of U.K. postal addresses. It is used widely by public entities and private business, licensed by some 37,000 end users.

The primary uses of the PAF listed in the paper are unsurprising: postal services and distribution of goods; address capture software; database cleansing and data quality management; market research and statistical work; geo-location products and services; identification and authentication tools; direct marketing and location-based marketing services; public services planning and provision; and as a core reference tool, enabling data sharing and integration. These uses are consistent with those given in other papers and studies of the users and uses of postal address files in developed economies.

To determine the value of the PAF, the PAF Advisory Board looked at the current costs to users of the PAF, the revenues that would not exist if the PAF did not exist, and the estimate of additional costs to postal sector and to users of PAF if it did not exist, assuming that the users could continue to provide services without the PAF. (The term "Quantification of the Counterfactural" is used, which simply put means determining a value for a contrary factual situation, as with a null hypothesis in a statistical study. In the case presented here, that different situation would be the non-existence of the PAF.)

The paper examines in some detail the assumptions and conditions that apply currently and the "counterfactual" conditions.[2] It posits that there would likely be multiple datasets and files developed to

[1] PAF Advisory Board (September, 2012) *Estimating the Economic Value of PAF®*, Version 2.0, London, United Kingdom. www.pafboard.org.uk/documents/PAF(12)24%20Estimating%20the%20Economic%20Value%20of%20PAF.pdf

[2] The conditions and assumptions in the paper are too lengthy to cover here and reviewing the paper for the complete list is recommended.

fill the void if the PAF did not exist. Some current uses might be difficult, if not impossible, to meet. In this latter case, the loss of revenue from the lack of a particular service or product that is allowed by the PAF's existence is factored into the calculation.

There is no current alternative dataset that would completely fill the void were the PAF not available. The current potential alternatives include The National Address Gazetteer; Local and Land Property Gazetteers and National Gazetteer; BT OSIS; and the Edited Electoral Roll register. Other options might develop if without the competition from the PAF. These might have different pricing and contain different details than are currently available in the PAF but it is unlikely that a single source would develop, or would have developed, if the PAF did not, or had not, existed. The support for this conclusion in the paper is persuasive.

The study estimates that the direct economic value from PAF® as being between £992m and £1.38bn a year, with detail for "the costs of revenues foregone if PAF® did not exist" and "additional costs to postal providers and users". The following summary in Table 4.4.3 is on page 27 of the report. As with the Danish study, the estimates are conservative but could be higher or lower than if the counterfactual were reality.

Economic value of PAF®

Category	Estimated Total Value
Estimated revenues foregone	£358m-£696m
Estimated additional cost imposed on postal providers and other users	£634m-£684m
Range Total	£992m – £1380m

Postal service and the distribution of goods account for approximately 40% of that value. No breakdown between what was attributable to the public and private sectors was provided.

Preceding the table reproduced above in the report are the estimates that support these totals. For example, with an estimated 35% of market research revenue dependent on the PAF and allowing for some alternative dataset to replace some of that use, the report estimates that the loss of revenue (i.e., the revenue foregone) would be between 10 and 20% of the estimated £2 billion in current revenue depending on the use of the PAF, or a loss of £200 to 400 million. Likewise, the additional costs are estimated for various groups of PAF users. For e-retailing, with £81 billion in revenue dependent on the PAF, the cost of mis-delivery is projected to increase from a current estimated £1 billion to an estimated £100 billion if the PAF were not available.

It is important to note, as this study does, "that the value of PAF® as a commercial asset to Royal Mail is in the order of £1bn. Such a valuation would normally be calculated as a multiple of PAF® turnover in license fees." The value as a commercial asset to Royal Mail would be as an intangible asset, in line with standard accounting principles as it would with any other business.[1]

The economic value of £992m – £1380m is the direct value of the PAF to U.K. government and business. The indirect benefits, both financial and non-financial, derived from the PAF are touched on in the paper but are not included in the estimate of economic value. Cultural value is particularly mentioned in this paper. While not given an economic value, the paper notes that postal codes also are used as an indicator of location and have come to be used as a signifier of social status and of economic need.

United States

With the 50th anniversary of the establishment of the U.S. Zone Improvement Plan Code, better known as the ZIP Code, the Office of the Inspector General (OIG) for the United States Postal Service (USPS) published *The Untold Story of the ZIP Code* in 2013.[2] Within the U.S. government, an OIG is an auditor,

[1] The total value of the Royal Mail was put at between £2.6 and £3.3 billion in late September, 2013, by the U.K. government in advance of the Royal Mail's privatization.

[2] U.S. Postal Service Office of Inspector General (1 April 2013) Report Number: RARC-WP-13-006, *The Untold Story of the ZIP Code* Washington, DC, United States. http://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-13-006.pdf

established by law to examine and report on government entities and independent of the relevant entity's administrative control. Each OIG is attached to a particular department or function and specializes in that particular area.

This paper limits its discussion to the ZIP Code rather than the complete address, unlike the papers for Denmark and the U.K. The ZIP Code permits the same type of simplified location indicator as noted in *Estimating the Economic Value of PAF*® for the U.K. postal code. As the paper notes, "The use of the ZIP Code outside the Postal Service exploded and the ZIP Code evolved into a public good that is part of the national infrastructure." These uses were unplanned.

Although the ZIP Code is the property of the USPS, it was established as, and remains, a publicly-accessible open use product. No intellectual property fees are charged for the use of the ZIP Code. The uses by both the public and private sectors are extremely varied. The uses are similar to those identified in Denmark and the U.K. It is likely that similar uses would occur in most developed countries.

Some differences also exist between the countries. Legal limitations vary on address data's use, such as licensing fees or privacy restrictions. The structure of the data also varies. For example, the ZIP Code boundaries do not correspond to the boundaries of public administrative units – states, counties, cities and towns – which are not consistent with the postal codes design in all countries.

To place a value on the ZIP Code, the OIG examined the various standard methods – original cost, replacement value, capitalization, and market value – for valuing an intangible asset.[1] Because of the time elapsed since its creation, the original cost cannot be determined. Because of the lack of an equivalent file (in common with both Denmark and the U.K.), there is no known replacement to provide a value. Because there is no equivalent that has been valued and sold, a market value cannot be determined. That leaves the capitalization method. (There are differences in accounting practices for this method between countries.)

"Taken together, these considerations suggest that the capitalization method is most likely to be the best approach for valuing the ZIP Code. This is fortunate because this is generally thought to be the most theoretically sound method even if it can be difficult to calculate.", as the report states. It is indeed both difficult to calculate and difficult to explain simply.

As explained in the report, "This method relies upon computing the discounted present value of the future economic benefits that would be created by the ZIP Code over the next ten years. The future benefits may arise from additional revenues generated by the asset, from a reduction in cost caused by the asset, or from both." Computing or estimating the present value of future income and savings caused by assets is difficult in most cases. In this case, the complexity and pervasiveness of the ZIP Code's use make the analysis more difficult.

The various users of the ZIP Code were identified for purposes of the analysis. According to the paper, "There are four main groups:

- The Postal Service;
- Firms that use the ZIP Code to enhance mail-related products, such as courier firms and catalog merchandisers;
- Firms that use the ZIP Code to enhance non-mail-related products, such as real estate firms that use the ZIP Code to organize their listings; and
- Consumers, government agencies, and the nonprofit sector that use the ZIP Code for informational purposes."

As with the analysis of the PAF's value to the U.K., the value to each group was calculated. The values are provided the table on page 9 of the paper, reproduced below.

[1] The potential methods, the chosen capitalization method for this analysis, and the details of the calculations are discussed in the Appendix, beginning on page 19 of the paper.

Table 3: Economic Value of the ZIP Code by Use Groups

User Type Categories	Value in the First Year (in billions)	10 Year Value (in billions)
Value To The Postal Service	$2.2	$16.8
Value To Firms that Enhance Mail-Related Products	$2.1	$21.3
Value To Firms that Enhance Non-Mail-Related Products	$2.4	$24.4
Value To Consumers, Governments and Non-Profits	$2.9	$30.6
Total	$9.5	$93.1

As with the other papers for Denmark and the U.K., the assumptions made in the calculations were conservative. The paper also acknowledges that there are other uses of the ZIP code that are not included in the calculations and that some of the data were not current. Because of these reasons, the value estimate is likely to be low.

Since the non-postal uses of the ZIP Code were not planned, there was no thought at the time of its creation to what might be done to enhance its value for those uses. Additionally, there have been significant changes in postal operations in the last 50 years. Potential "enhancements" to the value of the ZIP Code are discussed briefly but are limited to business purposes. Unfortunately, no mention of the actual or potential social value was included.

Comments

All three studies were conservative in their valuations and estimates, which is appropriate with economic indicators of such a pervasive and high-value asset as addresses are in these countries. As the trailblazers in this difficult and complex area of analysis, each selected a different methodology.

The studies did not include the complete value of the address for a variety of reasons that each paper acknowledges. In the Danish case, the calculation was limited to the value for the distribution from those receiving the data directly from the government source. For the United Kingdom, the study did not include indirect benefits. The United States study looked only at the value of the ZIP Code and did not include all uses of the Code. All three touch on, but do not directly include, the considerable saving achieved by each country from a delivery point database and a change-of-address capability.

Still, the estimates are considerable. The importance of addresses to national economies is clear from these three studies. Given this importance, countries might well benefit from more closely examining the value of their own addresses to their country and economy. Since each of the countries that have done so used different criteria and made different assumptions, the development of a standard methodology that could be used by any country would be useful. This methodology should adhere to accepted international accounting practices and take into account the complete address.

Government and Civil Society

Civil society is, broadly, the individuals and organizations independent of the government. (Some definitions exclude for-profit businesses as well.) Government includes administrations from the national level down to the local authorities. The evaluations of national address files discussed above do not include the benefits to these major segments of society but they do mention them. The monetary valuations of the benefits to these groups are, as with the national address files, difficult and complex. Few estimates are publicly available. However, there is considerable literature that enumerates the benefits without attempting place a monetary value on them.

Two estimates, given below, give an indication of the magnitude of the values. According to Geovanni Campos, postal distribution director at Correos de Costa Rica, the lack of an address system cost the

national economy US$720 million a year, in a country that had at that time about 4.4 million inhabitants.[1] Costa Rica began implementing a standardized system of street addresses in 2010, with Correos de Costa Rica working for five years on their US$4.8 million address development plan. Using these figures, the new address system was worth more in one year to the Costa Rican economy than its total 5-year cost.

In discussing the European addressing, UPU's paper "Addressing the world – An address for everyone" states, "a comprehensive, harmonized and geocoded address database available across the EU could result in potential payback of billions of euros worth of improved efficiency every year, fewer unnecessary duplicated efforts, faster response times, saved lives, broader tax collection, and intangible socioeconomic benefits improving the welfare of the state. The exact amount was difficult to evaluate, but it was tentatively concluded that the overall value could be as high as 0.5% per annum of the EU's GDP, for a total of about 63 billion EUR."[2]

The benefits of addressing systems that are often mentioned without monetary valuations are many and varied. Put concisely, an address allows and encourages social integration, which can have many positive consequences. Visitors, emergency services, and postal and other delivery services can locate an individual with a standard address more easily. Potential employers may look more favorably on someone with an established residence and can contact the addressee. Banks may be more willing to conduct business with an individual with an address, allowing the establishment of an account or loan possible. In some places, an address makes voting and other civil participation possible.

For the different levels of government or civil administration, addresses often make the physical location of residences and businesses clearer and easier to find. This allows for a better population census; improved planning of utilities, roads, and emergency and other services; and more efficient tracking of crime and criminal activity. The assessment and collection of taxes and fees is also simplified by a database of all addresses. Obviously, some individuals may not see better tax assessment and collection or more efficient tracking of crime or criminals as benefits. They do, however, benefit the society as a whole if not all the individuals in the society equally.

(Another set of potential positive or negative results of address systems are more dependent on the use to which they are put by the government and an individual's viewpoint. For example, addresses also make tracking individuals easier. This can facilitate the location of criminals or of political opponents or dissidents. It can lead to an invasion of privacy or not, by either the government or private businesses. Expanding the number of residents with addresses may expand political and civic participation to previously excluded groups. This might be seen as a boon or as a threat.)

An examination of the partial list of benefits listed above makes it clear why assessing the monetary value is difficult. There are many overlapping and intertwined values. Each of these would need to be assessed, since one use does not diminish the value of other uses because addresses are non-rivalous as we saw in the discussion of public goods above. Thus, the various values of the address are additive.

As with the value for national address files, more needs to be done in this area. Morten Lind, a consultant to the Danish study, "The value of Danish address data: *Social benefits from the 2002 agreement on procuring address data etc. free of charge*", has suggested a broader methodology for valuing addresses in his presentation 2007 presentation "Benefits of common reference data".[3] As the title suggests, Mr. Lind examines the value for a single address reference file as created in Denmark. His model also points to some ways to value an address system beyond what has already been done, including the impact on the society.

---

[1] Costa Rica News Briefs, InsideCostaRica.COM, (15 February 2011) "Correos de Costa Rica "Mid Way" In Its Plan To Transform Costa Rica's Addresses"

[2] Universal Postal Union, op. cit., p. 103

[3] Lind, Morten August 20 – 23, 2007, **Benefits of common reference data** (presentation), URISA, Washington, DC, National Survey and Cadastre, Denmark. http://www.isotc211.org/address/Copenhagen_Address_Workshop/papers/Lind_BenefitsOfCommonAddressReferenceData_URISA2007.pdf

Private Businesses

The focus shifts from a combined or cumulative value to the value of the addresses to the value of those addresses held by at particular company. While organizations have many different address lists – employees, suppliers, customers and prospective customers, this discussion will focus on customer and prospective customer lists. In some cases, a company's basic business may be the creation, maintenance and provision of address lists to other companies. In this case, these lists will form the company's products. For most companies, their address lists will be a by-product of doing business – their customers and prospective customers.

Conundrum of Internal Value versus Asset Value

Organizations may find on talking to their accountants that their lists have no asset value. They may not meet one or more of the required criteria for an intangible asset or their potential future income may be too low. However, the list's practical value to the company is extremely important whether or not an address list or file or database has a monetary value in a company's accounts. These two different values – the practical and the accounting – should be kept in mind when considering the value of an organization's address lists.

The accounting value of addresses derives from their ability to produce income or potential income for each company. It is most often the ability to promote products or services to potential and previous customers and to rent lists that provides the basis for the value of the addresses. Rather than the value on the list rental market, the value might be based on the potential price if the list or file or database were sold, most often at the time a company is sold to another owner. This value may be nearly impossible to separate from the total value of a company. There are few, if any, cases of companies selling their customer lists and all rights to them separate from the sale of the company. These lists have too much importance in continuing to sell products to existing customers.

Obviously, any company's address database will differ from that of other companies. Those differences will affect the comparative value of the address databases. The criteria are not limited to the number of addresses but include the quality of the addresses – a subjective judgment – and the additional information that is attached to each address entry. To have monetary or practical value, an address must minimally be current and correct.

List Rental as an Indicator of Value

A quick overview of the factors that affect list rental prices provides some idea of the criteria and the disparity in monetary values for addresses. The U.S. market will be used as an example because it has a robust rental environment and is mostly not limited by privacy legislation. The same types of considerations can be applied to values in other markets with appropriate consideration for local laws and regulations. As we are discussing postal addresses, this discussion does not cover lists rented for email or telephone marketing.

Rental lists are used for marketing and names become more important and add value to the list. This is a major difference from the value of national address files, where the value lies completely in the address itself and the accuracy and completeness of the addresses in the file.

Currently, lists rental prices start at US$50 per thousand names (usually written as $50/M) and can go higher than US$385 per thousand for a single use, often mailing or emailing of a marketing piece. The less expensive of lists for rent are compiled. That is, they are gathered from public or openly published sources and would include lists such as all physicians in a city or all new parents in a particular area. Most compiled lists on the rental market are priced between US$65 and US$125 per thousand names.

Lists of customers, subscribers, or members offered by catalog companies, publishers, associations, or others have a higher fee, and sometimes a much higher fee, most often from US$125 to US$375 per thousand. The individuals on these lists are perceived to be more likely to respond positively to offers by the company renting the list, potentially spending substantial amounts for the products or services they

are offered. The higher priced lists are specialized and few lists can rent at the higher prices. However, lists with significantly higher prices may rent less often, reducing or equalizing the revenue with lists that have lower rental fees.

In addition to the base price, lists will usually have selection criteria that vary by the type of list. For example, a business list would likely include the industry classification, number of employees, revenue, and the level and function of the individual on the list. A list of consumers (individual not at businesses might include sex, income, marital status and other demographic characteristics. Using these criteria to create a more targeted list normally has a fee in addition to the rental fee.

The rental fees are usually split between the list owner, who often receives 60% of the fee; the list manager, who often receives 20% for promoting the list and fulfilling orders for it; and a list broker, who often receives 20% for arranging the rental on behalf of the list renter. There are variations to this and other arrangements. Lists may be rented infrequently or as often as the owner will permit, with no real "usual" number of rentals in a month or year for the "average" list. The wide range of rental fees and the lack of a common frequency for rentals indicate the problems in placing a monetary value on lists.

For some companies that rent their current and potential customer list for marketing purposes, the ancillary income of list rentals has become a substantial portion of their revenue. For most companies, the income from list rental is a minor addition to their income.

Placing a Value on Intangible Assets

In discussing database value (not limited to address lists), Valuation Consulting Limited wrote, "The formation of a valuation opinion is by and large an art, often an expert opinion from experience, not a science. A valuation opinion is a judgment made on the basis of available facts about the subject asset and the market in which it is exploited."[1] David Reed concurs that judgment is required and there is currently no accepted single standard for valuation: "*There is currently no existing standard accepted by the accountancy profession for doing this.*"[2] [Italics from the original document – M.L.]

In accounting terms and in all cases, address lists are intangible assets of the companies that own the lists. As previously mentioned, intangible assets must meet particular criteria to be included in a balance sheet. Further, the criteria and the methods of valuation are subject to the accounting regulations, practices and finding that apply in that jurisdiction. In other words, what is done in one place may not be the same (and might be illegal) in another place. There are, however, generally recognized criteria and methods.

To review the basic criteria for inclusion in a balance sheet, intangible assets must

- be identifiable and describable,
- be subject to ownership and be transferable,
- be controlled by a person or company, and
- have future economic benefits to the owner.

So, a company must have a database or file of addresses that can be identified and described, such as "our customer list in XX file". (As previously mentioned, correct, organized addresses have value and incorrect, disorganized addresses have no value.) The company must own that list, have control over it, and be able to sell it. But the addresses must also have future monetary value and that value must be subject to determination and proof.

Once it is determined that the address list, file or database meets the criteria for valuation as an intangible asset, the method(s) of valuing it must be selected. This is one of the areas where practical

---

[1] Valuation Consulting Limited (2005) *A Case Study in the Valuation of a Database*, London, United Kingdom. http://www.theidm.com/download/pdf/DBV_case.pdf

[2] Reed, David (August 2006) *Database Valuation: Putting a Price on Your Prime Asset*, IDM Data Council, The Institute of Direct and Digital Marketing Limited, Teddington, United Kingdom. http://www.theidm.com/download/pdf/DBV.pdf

considerations meets the "art" of an expert valuation opinion, while staying within the requirements dictated by local regulations, laws and practices.

The methods for valuing intangible assets cited in *The Untold Story of the ZIP Code* are original cost, replacement value, capitalization, and market value. The methods listed in *A Case Study in the Valuation of a Database* vary slightly from this list: cost approach, income (or capitalization) approach, and market approach. The replacement value method is not often useful for determining the monetary value of a private company's address database. Replacements are often not available for a list that was created over time from customer interactions or from extensive research. If replacements were readily available, the list would have a low market value. Uniqueness or rarity enhances value.

Valuations can use a combination of methods in some cases. (Again, this depends on the specifics of the local requirements for accounting practices.) Combining methods can sometimes assign a value to an address list when a single method is insufficient. This may be done when the value derived from different methods are likely to yield very different values or when there is a complex situation, such as when there are multiple used for the same list. Multiple methods are also used to confirm that the value derived using one method is approximately the same as in another method and, therefore, correct. Given the complexity of establishing that a database or list can be valued as an asset and that of choosing and applying an appropriate method for the evaluation, it is easy to understand why doing a valuation is more art than science.

Obviously, it is not possible here to offer actual values for databases because each case is unique and requires knowledge of the local accounting regulations and requirements. While what's been referred to here as the practical value of address lists to the company that owns them may have no asset value to that company, the uses of the lists add to the economy health of the company by permitting on-going contact with customers.

Conclusion

Addresses are important to countries, to companies, and to individuals. However, the monetary or economic worth of addresses can be difficult to determine. To have economic value, addresses must be organized in some way – as a national address file, as a customer database, or as a listing of all properties in a town – and those addresses must be accurate (or reasonably so). These files of addresses do not diminish in value from multiple uses but maintain their value in each separate use.

For private organizations, their address databases or files can be integral to continued success or growth of the organization. Whether or not these files can be considered an asset on their balance sheet is often less important than their value as a continuing source of customer information. To be considered an asset, the database itself should produce future income. The valuing of these as assets can be as much art as accounting "science", with the unique circumstances of each company matched against the applicable accounting standards, practices and regulations.

On a more macro level, national address files have multiple uses that contribute to the overall value of the files for their countries. With only three published evaluations of national address files, all of which take a narrow and conservative approach, it is not possible to understand the full economic impact of addresses. As an indication of the importance to developed countries with national address files, the estimate in the UPU's paper that the value of these files might be as high as 0.5% of the EU's GDP annually. (Of the three published studies, the highest figure was for the United States with an estimate that the ZIP Code contribution was almost 0.3% of U.S. GDP in its first year.) For those countries without a national address system and file, the Costa Rican estimate that the lack of an address system cost the national economy US$720 million a year is an indication of the importance of establishing address systems.

The development of a standard methodology for evaluating the worth of address systems to a country's economy would aid significantly in the clarifying the costs and benefits of address systems. Businesses in countries with well-developed and organized address systems are aware of the advantages and the savings of having such a system. The benefits to all levels of government and to the individual residents must also be taken into account.