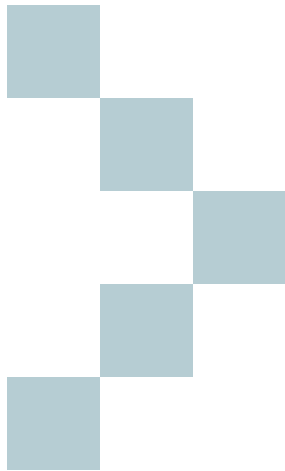




bill
monitor™

invented by mathematicians in Oxford to find you the right contract



The national billmonitor mobile report

How the UK can save almost £5 billion on its
mobiles – and why customers spend so much in
the first place

www.billmonitor.com



what is billmonitor?

billmonitor is a bill analysis engine for mobile phone users. Employing highly developed statistical methods, billmonitor analyses post-pay customers' online bills to find out exactly how they use their phone, then analyses all the contract deals in the market before matching them to exactly the right contract so they pay no more than they should.

billmonitor was founded by mathematicians in Oxford, who saw an opportunity to put maths to use in solving complex consumer choice problems such as choosing mobile contracts. billmonitor is an independent and impartial service that helps mobile phone users save money not only via its unique bill analysis but also through the UK's only Ofcom-accredited mobile comparison calculator.



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Methodology

The results in this report are based on statistical analysis of 28,417 anonymised bills from customers with mobile contracts on O2, Orange, Vodafone and T-Mobile covering usage over the last 18 months. The analysis was carried out by the billmonitor team together with billmonitor's science advisers, Professor Chris Holmes and Dr Nicolai Meinshausen (both from Oxford University).

In order to calculate how much an individual customer can save, billmonitor performs simultaneous calculations as to how much that customer would spend if they were on each of the 8,530,118 mobile contracts available online from the major networks and retailers¹ on March 2011. This calculation takes into account not only tariff and handset costs but also the costs for all usage – going line-by-line through the customer's bill to give a 'real bill' cost.

The calculation also includes a statistical model of the customer's future usage pattern to ensure the highest confidence levels for the savings quoted. In addition, matching customers to the right contract fully accounted for their stated preferences for handset, network and contract length when looking for a new contract².

Savings are defined as the difference between the cheapest contract identified by billmonitor using the process outlined above and the customer's current bill as analysed by billmonitor. The national figures are then obtained by scaling up to the 33m customers with mobile contracts in the UK³.

1 Including O2, Orange, Vodafone, T-mobile, Three, Virgin Mobile, Carphone Warehouse and Phones4U.

2 Deals that don't match the customer's preferences (as entered in billmonitor) for handset, network, contract duration, cashback deals and extras are excluded.

3 As referenced by Ofcom's Communication Market Report 2010. Moreover the scaling calculation corrects for the fact that no customers currently on Three are analysed, by conservatively assuming that bills for customers on Three are 17% lower than the average on O2, Orange, Vodafone and T-mobile (which accords with the ARPU difference observed by comparing the annual reports of these network operators) and that the savings for customers on Three would be 10% lower than the top 4 networks (as suggested by comparing costs via billmonitor regards best contracts on Three with the average best contract from the top 4 networks, for each customer).



Chapter 1

UK mobile subscribers waste £4.899 billion per year

The three main reasons why 76% of mobile subscribers are on the wrong contract wasting an average of £194.71 each per year

1. **52%** of those on the wrong contract are on a tariff that's too large for them, using on average just one quarter of their monthly calling allowance

Total waste: £2.62 billion

2. **29%** of those on the wrong contract are on too small a tariff, wasting money on out of allowance calls, texts, data usage as well as other costs that could be reduced with a larger tariff

Total waste: £1.53 billion

3. **19%** have the right level of inclusive minutes but are wasting money by not optimising free benefits, data & text allowances as well as other costs, or taking advantage of lower costs from 24 month contracts

Total waste: £0.74 billion



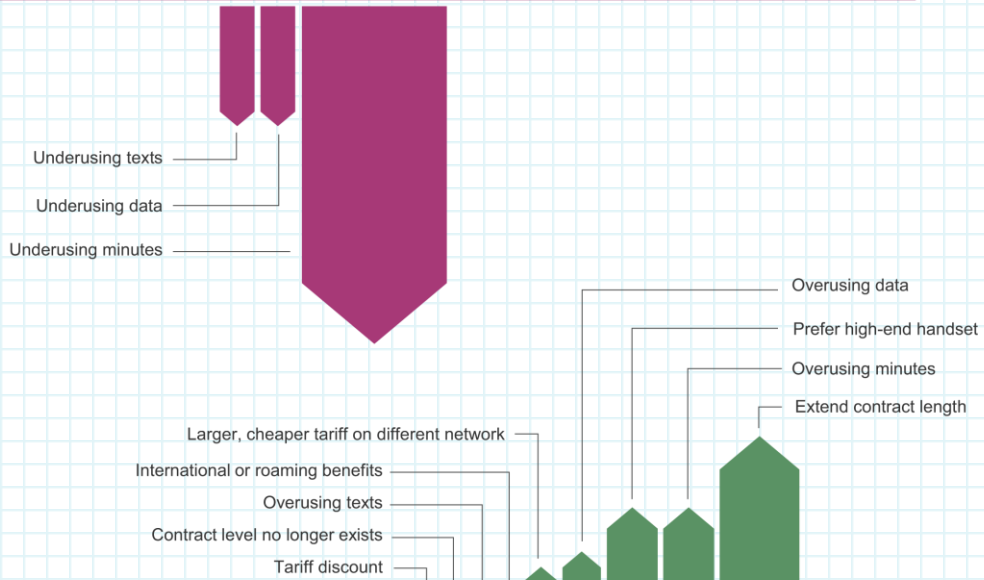
£4.899 billion wasted per year,



76% of mobile subscribers are on the wrong contract

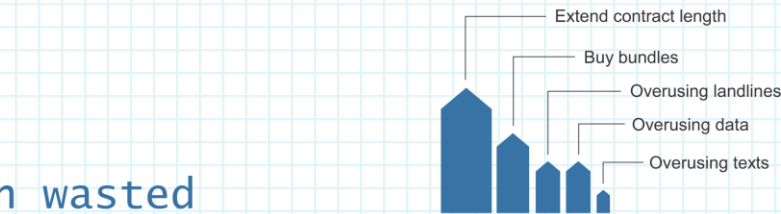
£2.62bn wasted

52% of those on the wrong contract need a smaller contract



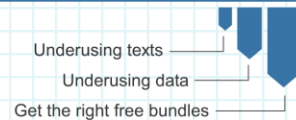
£1.53bn wasted

29% of those on the wrong contract need a bigger contract



£0.74bn wasted

19% on the right minutes but still wasting





The “wrong contract” problem

Evaluating customers’ actual mobile phone usage, as detailed in their monthly bills, against available contracts in the market, billmonitor calculations show that **76%** of UK mobile subscribers are currently wasting on average **£194.71** per year on the wrong contract. Compared to the average UK yearly bill of **£439** per year, this is equivalent to a **44%** overspend.

For the purposes of this analysis, the “wrong contract” is defined as any contract, where the customer pays more than they should (including the price paid for tariff allowances for minutes, texts & data as well as bundles) – in other words: their usage patterns can be matched to a better combination of tariff and bundle and customers can make a saving. In addition, matching customers to the right contract fully accounted for their stated preferences for handset, network and contract length when looking for a new contract.⁴

52% of post-pay customers on the wrong contract are on a tariff that’s too large – wasting £2.62 billion

74% of mobile subscribers never exceed their minutes allowance and the majority of these customers use just one quarter of their monthly minutes. These subscribers, who have contracts four times larger than they need, represent **52%** of those on the wrong contract (**13 million** subscribers) and they’re wasting on average **£200.17** a year.

Although recent research has shown that **51%** of customers are aware that they “usually use less” minutes than their allowance⁵, it’s unclear whether they know the amount of money they’re wasting or the scale of the problem – billmonitor analysis proves that the same pattern exists across all tariff levels: customers on 300 minute contracts overestimate by an analogous proportion as those on 1200 minutes. This persistent error points towards a deep aversion amongst a majority of customers towards unexpected call costs.

“Are you tariff complacent? If you feel safe in your allowance, you may be one of 13 million wasting on average £200.17 a year on a tariff four times too large for you.”

⁴ An example of customer preferences would be to specify a particular handset (eg. iPhone4, HTC Desire), any handset or no handset (the customer prefers SIM-only) or to specify a 12-month contract on a particular network. billmonitor has also analysed the wastage for UK mobile subscribers currently within their current contract, including customers whose contract is not up for renewal, and has found very similar trends.

⁵ Jigsaw, Mobile Calling Patterns Research for Ofcom, 2009, p.2 – (Opinium research puts this figure at 55%).



29% of mobile subscribers on the wrong contract have a tariff that's too small – wasting £1.53 billion

Contrary to media reports, very few customers are truly “bill shocked” by out of allowance call costs. No more than **5.85%** of subscribers spend in excess of **£5** a month for local call charges, whereas for the same cost customers can move to the next tariff level (allowing hundreds more minutes). However, these aren't the only customers whose tariffs are too small.

“Customers shouldn't just decide their tariff level on their minutes usage. Exceeding data or text allowances or even making international or roaming calls, can all be good reasons to move up. Choosing a 24 month contract is an important factor to make tariff level increase affordable.”

Another reason is the increasing trend for mobile data usage. Data allowances can be set independently from minutes but networks such as Orange and Three (and to a lesser extent Vodafone and T-mobile), still correlate these two allowances together. billmonitor calculations show it is rational for customers (such as smartphone owners) who are relatively heavy mobile internet users to move up their tariff level to increase their data allowance, even if the additional calling minutes are redundant (see Fig 1.2).

An influential factor which means customers are often forced to move up their tariff level is preference for a new handset. Those who prefer high-end handsets, may find they are more economical at higher tariff levels. For this group of customers, there is limited ability to get the right

contract matched to their usage. Nevertheless, compared to their current contract, almost half of customers can satisfy their current handset preference and still make savings.

There are also a number of other influencing factors as to why customers may need to move up a tariff. In some cases, customers derive additional benefits included in higher tariffs – such as O2's international traveller service, for subscribers who call or travel abroad (see Chapter 2 Fig 2.2). Alternatively, customers may benefit from a cheaper but nominally larger tariff on a different network. Finally, for customers in search of discounts, a larger tariff can be made cheaper via a special discount offer.

It's worth noting that, for many customers, particularly for those who spend less than £5 on out-of-allowance costs on calls, data or texts, the reason they are able to move up tariff level while also making savings is by extending their contract length from 18 to 24 months. This advice is covered in more depth for the third group of customers below.

19% of customers on the wrong contract have the right number of minutes but are not optimising contract length, free benefits, or allowance limits for data and texts – wasting £0.74 billion

For 19% of customers who have broadly the right number of minutes, the principal means for avoiding waste is extending their contract term to 24 months. A mere 6 month extension from 18 to 24 months, typically ensures customers can maintain their inclusive allowances and enables at least a **£60** annual saving for many subscribers. 24 month contracts are always better value than 18 months – sometimes significantly so.

In addition, customers in this group often waste money by not optimising their contract via the appropriate data and text allowances or either activating or purchasing bundles to cover out-of-allowance costs (several bundles are free to customers but require opting in to activate).

Given how complex it is for customers to understand their usage patterns and how to match their usage to the appropriate bundle options, it is unsurprising that many customers often do not make the optimal choice, such as selecting a landline bundle for subscribers who make frequent calls to landline numbers (offered for free on some networks), or an international or roaming bundle where appropriate. Conversely, a minority of customers may have the wrong bundle that is too expensive for the amount they use that service.

“Despite the common aversion to being “locked in” to a contract for too long, it’s inevitable that 24 month contracts will always be better value for the customer – with often disproportionately higher allowances than 18 month contracts.”

Congratulations and beware for the 24% who aren’t wasting anything

The above analysis has excluded those who are not on the wrong contract to illustrate the problems faced by the majority of customers. However, **24%** of subscribers cannot pay less than they do at the moment without applying alternative criteria.

Roughly half of those are on the right contract, having negotiated a better price for their tariff than the open market offers (such as “retention” tariffs). These customers often have allowances that are too large or too small, similar to the rest of the mobile post-pay market but due to their preferential discount, they pay less. billmonitor congratulates these customers.

In addition, there are a number of customers who must pay more if they are to satisfy their own preferences. For any subscriber who requires the latest smartphone handset, it may be difficult to find a contract that costs less than what they pay today. Customers in this situation should still be frugal and choose a contract where they pay no more than necessary – even if they cannot make savings compared to their present contract.(see Fig 1.1).

Fig 1.1 – Remarkable savings figures from billmonitor

- ❖ 47% of customers who want an iPhone 4, could get one on a new contract and still save **£156.24** this year compared to their current contract
- ❖ For **10%** of subscribers – or **3.3 million** mobile post-pay customers - billmonitor can save more than **£331.42** a year
- ❖ **1 million** UK post-pay customers could save at least **£500** a year using billmonitor
- ❖ billmonitor can find savings for **91%** of customers looking for SIM-only contracts
- ❖ If every subscriber were to decide to choose to go SIM-only on any network – **96%** would make an average saving of **£250.44**

why do these problems exist?

billmonitor explains how tariff complacency, mid-contract inertia and handset complexity lead to customers consistently choosing the wrong contract

£4,899 billion – a remarkable figure. That's more than one third of all mobile retail revenue⁶. Having diagnosed the causes above, what are the reasons behind why customers behave this way and can they be improved?

1. Tariff complacency and fear of bill shock
2. Choosing the right contract for a particular handset is complex and limited
3. Customers do not optimise their contracts enough during the contract term

⁶ As measured against latest post-pay retail revenue for 2009, £14.9 billion from Ofcom (excludes VAT), The Communications Market, 2010, p. 279

Those with too large contracts are tariff complacent and overcompensate due to fear of “bill shock”

For **52%** of those on the wrong contract who have a tariff that’s too large for them, a typical monthly bill may frequently come close to their tariff cost, leading to a false sense of security that they are not paying more than expected. In fact, it is this desire for security that leads to the single most common mistake by mobile subscribers: tariff complacency.

Customers feel safe in the generosity of their tariff allowance, which is four times too large for them, and would rather know their monthly bill amount ahead of time than risk the much rarer case of “bill shock”. The fear is rational as we prefer to avoid unpleasant surprises – but the overcompensation of four times more minutes than needed is absolutely not.

Contract choices for customers who prefer a specific handset are both complex and limited

billmonitor’s analysis shows that market offers for individual handsets can differ significantly from network to network – where the total cost of ownership for the same handset and similar contract allowance frequently differs by **50% or more**. For customers with a strong handset preference, it can be difficult to stay informed of the best offers for a given handset, leading to the wrong contract choice.

Moreover, for a minority of high-end smartphones, depending on the customer’s usage, the pricing tiers of contracts may force customers into larger contracts than they need in order to get the optimal total cost of ownership. Many customers then subsequently fail to correct this when given the opportunity to move down a tariff level mid-way through their contract. Alternatively, customers compensate for the higher cost of these smartphones by choosing contracts that are too small (perceived as “cheaper”) and, as explained above, never increase their tariff once they realise they are consistently exceeding their allowance.

Too many customers fail to optimize their contract during their contract term

Even for customers currently mid-contract, there is waste that can be avoided, without waiting for a contract renewal. **73%** of subscribers are wasting on average **£166.57** a year during their contract – not all of which is preventable but most of which is.

For those on a contract too large for them during their contract, most networks restrict the ability to move down a tariff, which means even those aware of the problem cannot immediately act to correct it. O2, Orange, Vodafone and Three customers may move down one level only after half their contract term has elapsed, while customers on T-mobile cannot move down at all. This means the majority of these subscribers can still save on average **£60** a year by requesting to move down.

Given the restrictions on moving down a tariff, a better strategy for customers uncertain of their usage would be to initially choose a smaller tariff, as this can be easily corrected mid-contract. All networks allow customers to

move up a tariff level during their contract. The exception is for customers who prefer a high-end smartphone, for whom smaller tariffs may end up being more expensive when usage considerations are factored in – in this case, the recommended strategy is to initially choose the tariff with the lowest cost of ownership matching their usage.

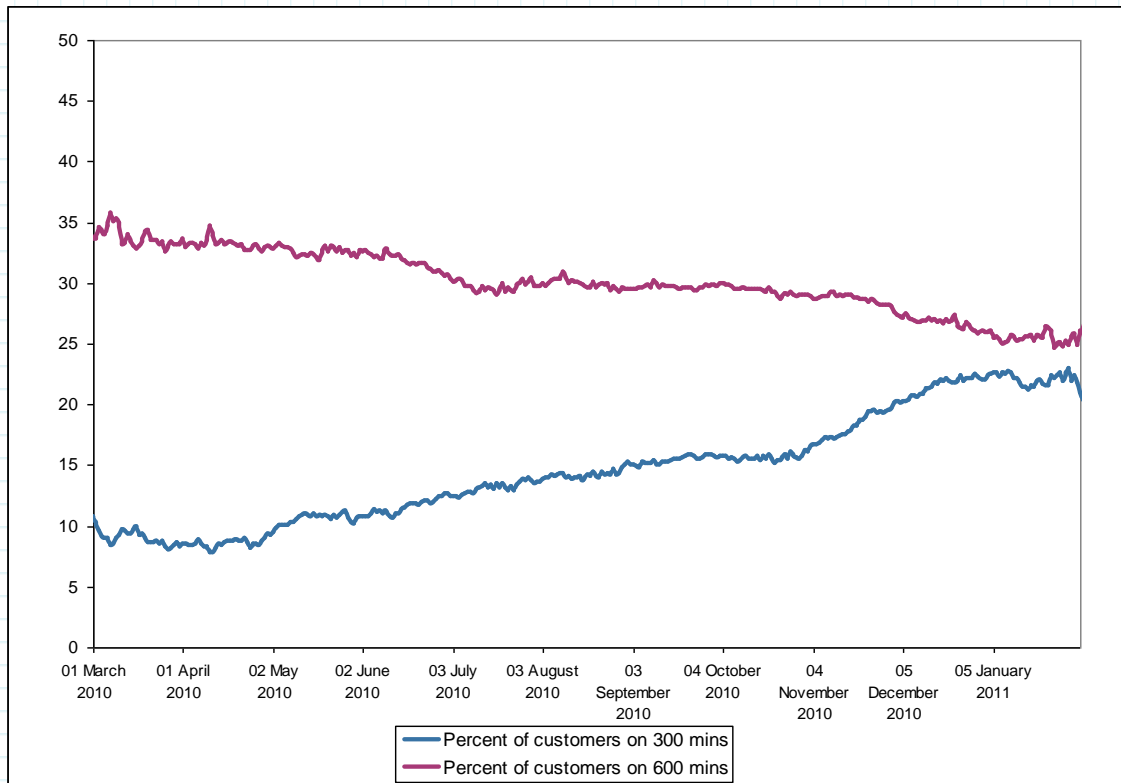
Those who are regularly exceeding their allowance by more than £5 a month on calls, data and texts, can easily make savings by moving up tariff level. For those who do spend more than £5 on calls, the average avoidable waste is **£272.23** a year.

Fig 1.2 As data usage grows, many customers may overestimate their own mobile data requirements and the problem of customers choosing tariffs higher than they need may be exacerbated.

As chapter 2 explains, the use of mobile data is on the rise, especially amongst smartphone users. The average mobile data use is now 133MB a month (about 60-80 web pages per month) but this underrepresents the case for the top 5% of users who have begun to exceed the standard 500MB allowance which most data-tariffs offer. Indeed the top 1% now frequently use over 1.5 GB a month. Given these trends, customers will need to become comfortable not only choosing the correct minutes allowance but also the correct data allowance, which is increasingly set independently (Orange and Three networks still correlate data with minutes allowance).

It's notoriously difficult for people to estimate their real data usage, as different mobile internet behaviours have very different data usage requirements, with no easy-to-grasp real world corollaries. Who knows the difference between reading an e-mail (10kb), visiting a website (1.5-2MB) or watching YouTube (roughly 3.8MB for every 5mins) on a mobile? If it's hard enough for customers to estimate their real calling usage, how much more difficult to estimate data? billmonitor predicts that if customers increasingly have to estimate their tariffs according to data usage as well as minutes, the number of customers making the mistake of going for an oversized safety margin will be exaggerated even further.

Fig 1.3 The most popular allowance limit for mobile subscribers is decreasing from 600 minutes to 300 minutes – does this indicate customers are making smarter tariff choices?



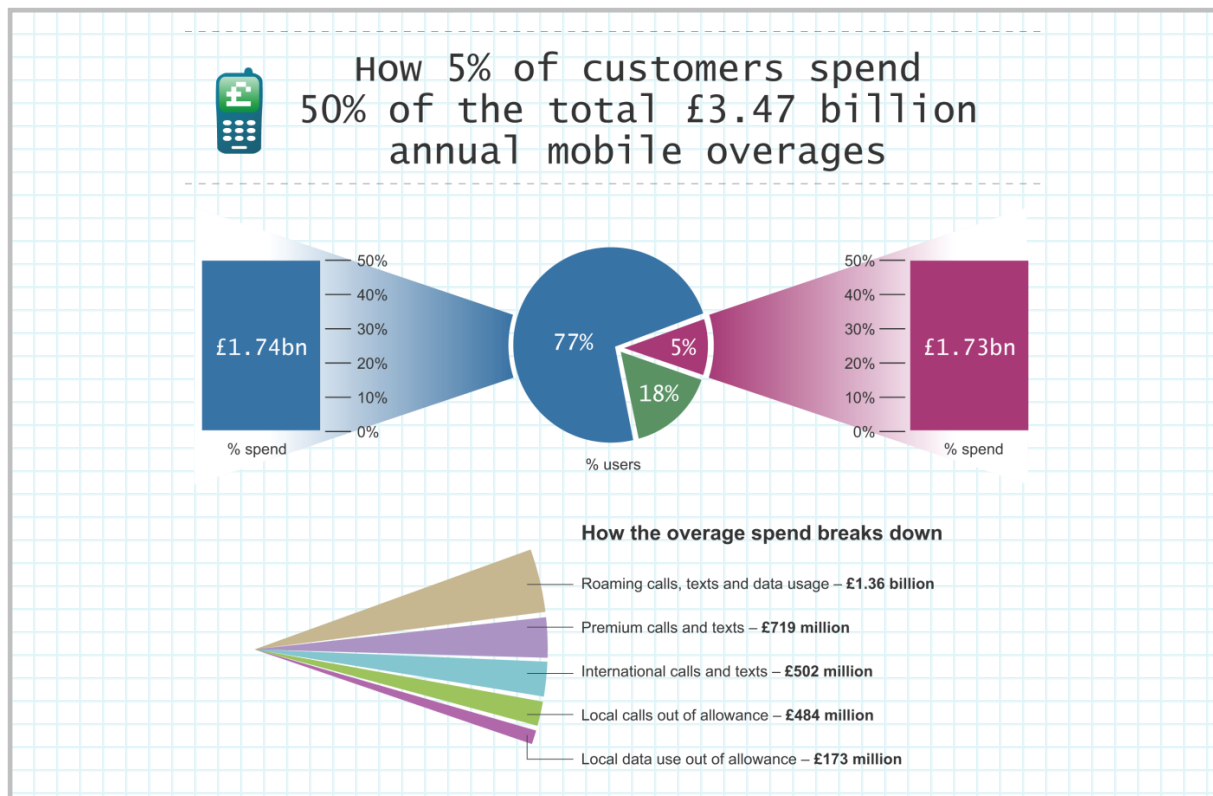
Analysing customers' tariff choices, billmonitor has observed a pronounced shift away from the most popular tariff level at 600 minutes towards 300 minute tariffs. This trend could indicate that customers are becoming increasingly aware of the waste caused by choosing tariffs much larger than they need and are beginning to choose tariff levels that are better adjusted to their real usage requirements. On the other hand it may simply reflect customers' drive to get overall cheaper tariffs in our economic times.

Chapter 2

£3.47 billion spent on charges outside of allowance, despite customer restraint

Although 82% of post-pay customers spend on chargeable services outside of allowance, only 32% spend more than £5 a month. Most customers are frugal, while the top 5% are responsible for half of the nation's spend. Here's how the spend breaks down for the most important areas:

- ❖ **Roaming** calls, texts and data usage – **£1.36 billion**
- ❖ **Premium** calls and texts – **£719 million**
- ❖ **International** calls and texts – **£502 million**
- ❖ **Local** calls out of allowance – **£484 million**
- ❖ **Local data** use out of allowance – **£173 million**



The last chapter described how UK mobile subscribers waste money by being on the wrong contract – of which the largest cost and most important aspect to change is the tariff. The average UK post-pay customer spends **£333.92** a year on tariff alone – more than three quarters of the average bill. This chapter explains how UK subscribers spend **£3.47 billion** per year on top of their tariffs.

Even though **82%** of customers spend on out-of-allowance costs (also known as “overages”), only **32%** spend more than **£5** a month. In fact, just **5%** of those who spend on overages (just **1.35M** subscribers) are responsible for **half** of the **£3.47 billion**. This top tier pay at least **£441** per year on overages – more than 4 times what the average customer spends.

The majority of subscribers that use out-of-allowance services are restrained, spending as little as possible on these notoriously expensive services. However, it’s often only a minority that even use these services; frequently below **half** of all subscribers spend money on any given overage. The exception to this rule is calls to premium numbers – which **82%** of post-pay customers regularly spend money on.

Roaming – The annual UK roaming bill is £1.36 billion and less than 2% of all subscribers are responsible for half the bill on roaming calls and data

Roaming is the single largest overage cost to the average UK mobile subscriber – specifically, the majority of roaming costs derive from calls made and received abroad (roaming calls)⁷. **38.9%** of the UK engages in roaming calls, paying a total of **£792 million** every year.

However, just **5%** of roaming callers (equivalent to **2%** of all subscribers) account for approximately **50%** of this spend. The average annual spend for **95%** of customers who make or receive roaming calls is **£33.36** a year, whereas for the top **5%** it is **£582.96** – more than 17 times as much.

In addition to roaming calls, UK mobile subscribers also spend over **£443 million** a year on data roaming.

Fewer post-pay customers (**23.6%**) use data roaming but the distribution of spend mirrors that for roaming calls. The top **5%** spend **£564.84** a year, while the **95%** majority ironically spend **5%** of that amount - just **£29.64**.

Comparatively, the UK mobile subscriber spends only moderately on texts abroad. Most of the **27%** of customers who use it spend under **£10** a year.

“Observing that the top 5% spend as much on roaming as many do on an entire holiday, it’s a good thing the EU placed a €50 cap on roaming data last year. Although even this maximum spend will be higher than many would like.”

⁷ “Roaming calls” include both incoming and outgoing calls for customers while they’re abroad. Costs differ between the two services but the usages are grouped together by networks, a pattern billmonitor follows here.

Fig 2.1 – “Hey, Big (and Small) Spenders!”: The highs and lows of mobile spending

Post-pay customers spend plenty on their mobiles – but some spend a lot more than others. The below are some examples of the more extreme mobile spending behaviour billmonitor has analysed:

- ❖ The lowest **5%** of spenders pay less than **£15.50** a month for their mobile – tariff and overages included
- ❖ On the other hand, the top **5%** of mobile spenders pay in excess of **£900** a year for their mobile phone bills
- ❖ billmonitor has discovered bills in the order of **£1,700** – for a single month
- ❖ Even though roaming calls sting **40%** of subscribers - some get a much bigger shock than most. billmonitor has seen costs for a single roaming call that have reached almost **£100**.
- ❖ Whereas the highest monthly bill for roaming calls that billmonitor has ever analysed surpassed **£1050**.
- ❖ The highest costs for roaming data in a single month were approximately what the top **5%** spend on average in a year – ie. just under **£564.84**.
- ❖ If roaming calls are responsible for the highest out-of-contract spend, then international MMS is by far the lowest. Just **2%** have ever sent a picture message while abroad. It seems we still prefer postcards after all...

Premium – 82% of customers call premium numbers from their mobiles and half send premium SMS. Even though each customer pays only a little, the total spend is still £719 million a year.

“billmonitor believes that with landline connections declining and the proportion of mobile only households increasing every year, “Freephone” has become a deceptive misnomer to a large part of the UK population.”

Unlike roaming and other overage services, the use of premium numbers, in particular premium-rate calls is very common and it's the second largest out-of-allowance cost to the UK mobile subscriber. The average spend on premium calls (which includes Freephone numbers) is just **£1.45** a month, though with **82%** using these numbers the total UK bill is **£574 million**. Premium SMS accounts for the remaining **£145 million** but only half of post-pay customers use them.

International – The UK spends £502 million calling and texting abroad, which is twice as much as UK visitors spend on day trips to Europe

Perhaps a call is not the same as a visit – but the UK spends double the amount calling abroad than they do when on day trips abroad. In total, UK mobile subscribers spent **£344 million** on international calls and **£158 million** on texts to foreign destinations. As with roaming, the top **5%** account for almost **half** the total spend.

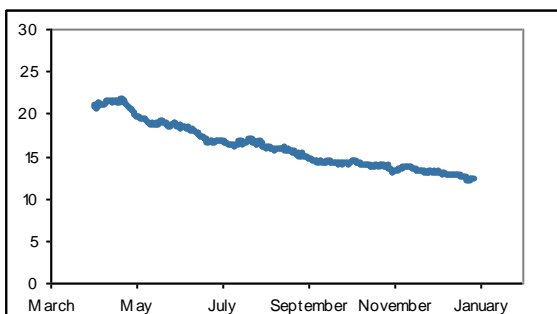
27% make calls and **41%** text to places outside the UK – but the top **5%** for each spend **£371** and **£101** on international calls and texts respectively per year. On the other hand, the majority of those who engage in international communication at all from their mobiles, are very occasional spenders – paying just **£20.88** a year for foreign calls.

Standard local calls – 74% have never paid for out of allowance local calls and most spend only 34p a month on average. However, 1.3% spend as much as £227.28 a year

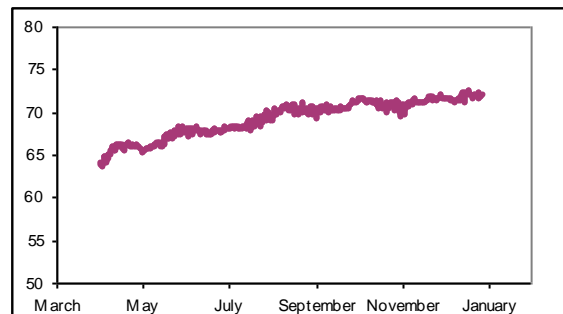
As stated in the last chapter, only **26%** of customers regularly exceed their minutes allowance on their tariff and just **5.85%** spend more than £5 a month. In fact, it's the top **1.3%** of subscribers (less than **half a million** customers), who pay large amounts without any evidence of restraint: **£227.28** a year on average.

Local data – Mobile data use has grown steadily as inclusive mobile data packages mean fewer subscribers are paying for it out of allowance

Percent of customers spending on data



Percent of customers using data



The trend for most overage use has remained flat over the last 12 months but mobile data use has proved a significant exception. As smartphone ownership has increased⁸, data usage has also increased steadily, so that **72%** of subscribers now use it on a monthly basis – a **10%** rise over the past year.

⁸ Ofcom, The Communications Market report 2010, p.298

Conversely, the number of customers paying for mobile data usage outside of allowance has declined at an accelerated rate over the same time period. Slightly more than **12%** of customers are still paying for local data outside of allowance, whereas at the beginning of last year it was as high as **24%**.

How come the spend on out-of-allowance costs owes so much to so few customers?

billmonitor explains the two tiers of mobile customer behaviour on out of allowance costs, gives advice for international mobile phone users and uncovers the paradox of premium calling

There are two very different tiers of economic mobile behaviour amongst UK mobile subscribers: the majority spend only when absolutely necessary and largely avoid it; whereas the top 5th percentile for each spend area spend like there's no tomorrow. The reasons why the top spenders' behaviour differs so radically from the rest of the population are unclear but may be due to factors such as price insensitivity, ignorance of out of allowance costs or of how to avoid them.

In contrast with usage of tariff-inclusive minutes, texts and data, customers appear highly aware of and averse to using chargeable services out of allowance. The effect on behaviour of moving a service from non-inclusive to inclusive can partly be observed in the growth of mobile data, one previously out of allowance cost that is now often bundled into tariffs.

While other overages have stagnated, mobile data use has greatly increased since tariffs began including data allowances, with a concurrent drop in customers paying for data outside of their tariff. Naturally, it is impossible to separate the growth of mobile local data usage from the introduction of smartphones that made mobile internet use so much easier and more user-friendly – but the cost factor cannot be underestimated.

For another example of how spend behaviour changes, observe the average overspend on local calls. 74% have never paid for out of allowance local calls, and for those who do go over, the average spend on out of allowance local calls is just £1.62 per month for most customers – indicating a clear and justified aversion to excess costs and also giving an indication that customers are aware of exceeding their allowance. The minority who spend more than a little – spend a lot more than average, indicating they are either unaware or unperturbed by any additional costs.

The premium paradox: Freephone numbers aren't free and customers want to call more

Almost all post-pay customers spend a little on premium numbers - largely to numbers billed as "Freephone", when in fact they are only free to call from landlines. billmonitor believes that with landline connections declining and the proportion of mobile only households increasing every year⁹, "Freephone" has become a deceptive misnomer to a large part of the UK population.

On the one hand, **£574 million** spent on premium numbers is a lot of money – especially given the average monthly spend per person is just **£1.45** a month. On the other hand, the high proportion of customers using these premium numbers (**82%**) indicates that there is high demand and this market is operating under a principle of severe restraint. How much more would customers call if these numbers were not priced so highly relative to their obvious usefulness and inclusive minutes?

Roaming and international overages – what costs when and how to avoid spending

When stepping or communicating outside of the borders of the UK, mobile costs become extravagant and the relatively low number of customers using these services (all have below 50% uptake), seem to be largely aware of this. For those who use their mobile internationally, the majority limit their costs, while a minority use their phone like they're still at home.

Given the complexity of these spend areas, billmonitor has given more in-depth advice on bundles or add-ons to minimise international and roaming costs (see Fig 2.2). However, there is some general advice and clarification that can be offered to all who use their mobile for roaming and international uses – illustrated with the story of Mary, a UK mobile subscriber:

What's local?

1. For Mary, a UK mobile post-pay customer living in the UK, calls to her other British friends are always charged at local rates (ie. often covered in her inclusive minutes) and she can receive calls for free in the UK, even when her boyfriend Juan calls from Spain.
2. While in the UK, Mary can also text any of her friends at home at local rates or covered under inclusive texts and she can always receive texts for free - wherever she is in the world.
3. If any of her British friends travel abroad, she can still call them at local rates – although she's also aware they'll be paying roaming rates for the privilege of talking to her.

⁹ Ofcom The Communications Market report 2010, p309 &338

What's roaming?

4. When Mary travels to Spain she, like all subscribers, must pay to make and receive calls.
5. When Mary tries to call Juan while she's in Spain, her network (like most) charges it as a roaming call - other networks may carry additional international costs too (billmonitor advises Juan, Mary and everyone else to check with their own network).
6. Mary knows that when she's in Spain, using internet or any other data services on her mobile is expensive, even with her roaming bundle. Like most people's smartphones, her HTC Desire switches off mobile data automatically when roaming and she rarely changes this setting unless absolutely necessary.

What's international?

7. When Juan visits the UK and Mary calls his Spanish mobile, she's charged for it as an international call (Juan also pays roaming to Telefonica when in the UK, so this can be the most expensive form of communication for both Juan and Mary – don't get fooled by being in the same country).
8. Mary also knows that when she texts her friends back home while she's in Spain – it will only cost her not them – just like when she texts Juan in Spain, while she's in the UK, she's the only one that will pay.

Fig 2.2 – Roam (almost) like you're at home: billmonitor's top bundles to save money for travellers

Bundles are extra monthly packages activated or paid for by customers for usage not typically covered in tariffs – they are also called add-ons, bolt-ons or boosters. billmonitor is the only mobile price comparison site that includes bundle recommendations in its results. Usually, billmonitor does not make broad recommendations such as the list below, since personalised recommendations are far more accurate. However, to provide a general overview – these are the recommended bundles and a suggested profile of who would match which one.

1. *Vodafone Passport* – Allows customers to make roaming calls using their inclusive minutes and receive calls for free for up to 60 minutes. There is a 75p surcharge for each call received and made – regardless how long the call lasts. Vodafone gives all customers this service for free but they must opt in to activate. You can roam in 35 (mainly European) countries.
Right bundle for: Making or receiving longer roaming calls; Vodafone customers travelling within Europe, New Zealand or Australia
Wrong bundle for: The majority who make shorter roaming calls
2. *O2 International Traveller Service* – O2 customers on 600-minute allowances or above can automatically opt in to this service for free – while others can pay £3.06. The service reduces costs for making and receiving roaming calls anywhere apart from Western Europe but is also very useful to reduce your international call costs from the UK to Europe by 80% and to countries outside of Europe by between 40%-82%.
Right bundle for: O2 customers who need to call abroad from the UK and call while abroad; those travelling outside of Europe; those who need to call others in the same country while abroad
Wrong bundle for: European travellers, real savings for frequent travellers in Europe
3. *O2 My Europe Extra* – For the more intrepid travellers who know they'll be using their mobile abroad in Europe as much as in the UK, this package is worth investigating. It's not cheap at £10.31 but it can be bought as a one-off or as an ongoing subscription. It lets you receive calls for free and reduces outgoing costs by 29%. As the name suggests, it's Europe-only.
Right bundle for: Heavy travellers within Europe
Wrong bundle for: Almost everyone else
4. *T-Mobile Euro Talk and Text Booster* – A pre-paid allowance abroad in Europe that lets you make 17 minutes of calls, receive up to 39 minutes of calls or send up to 68 texts (for customers purchasing it as an additional "booster", it is slightly more generous). T-mobile allows all customers to choose one free "booster" per month of which this is one. Alternatively, it can be bought in addition to any other one for an extra £5. Again, Europe-only.
Right bundle for: One-off purchase for infrequent or light usage whilst abroad with no surprises
Wrong bundle for: Heavier users; travellers outside of Europe
5. *Orange World Traveller* – Similar to the O2 International Traveller Service, but it costs £5 to buy the bundle. Customers get at least a 10% reduction in calls and texts while abroad in Europe and up to 30% while further afield.
Right bundle for: travellers outside of Europe, heavier usage
Wrong bundle for: Light users, travellers within Europe

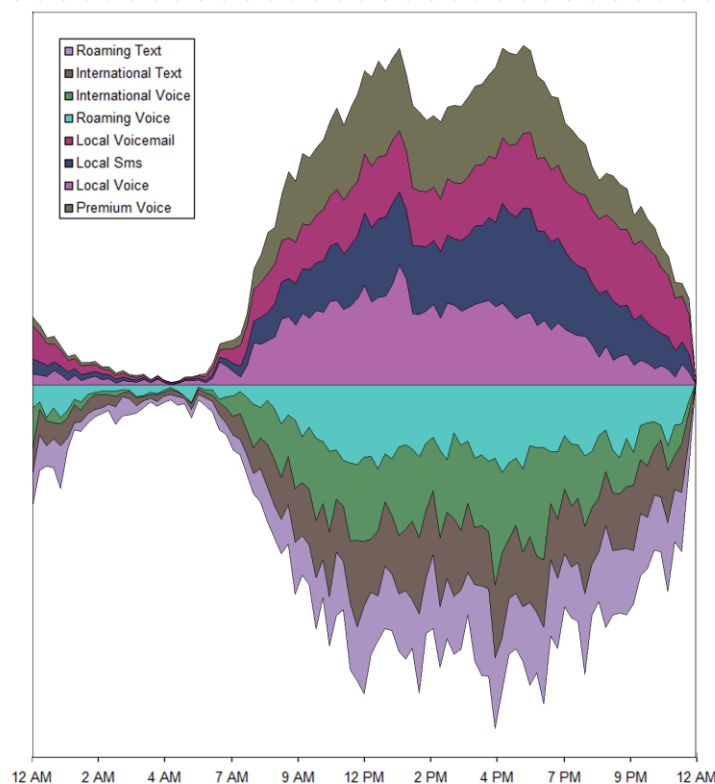
Chapter 3

When and how the UK uses its mobiles – the surprising truth about our mobile behaviour

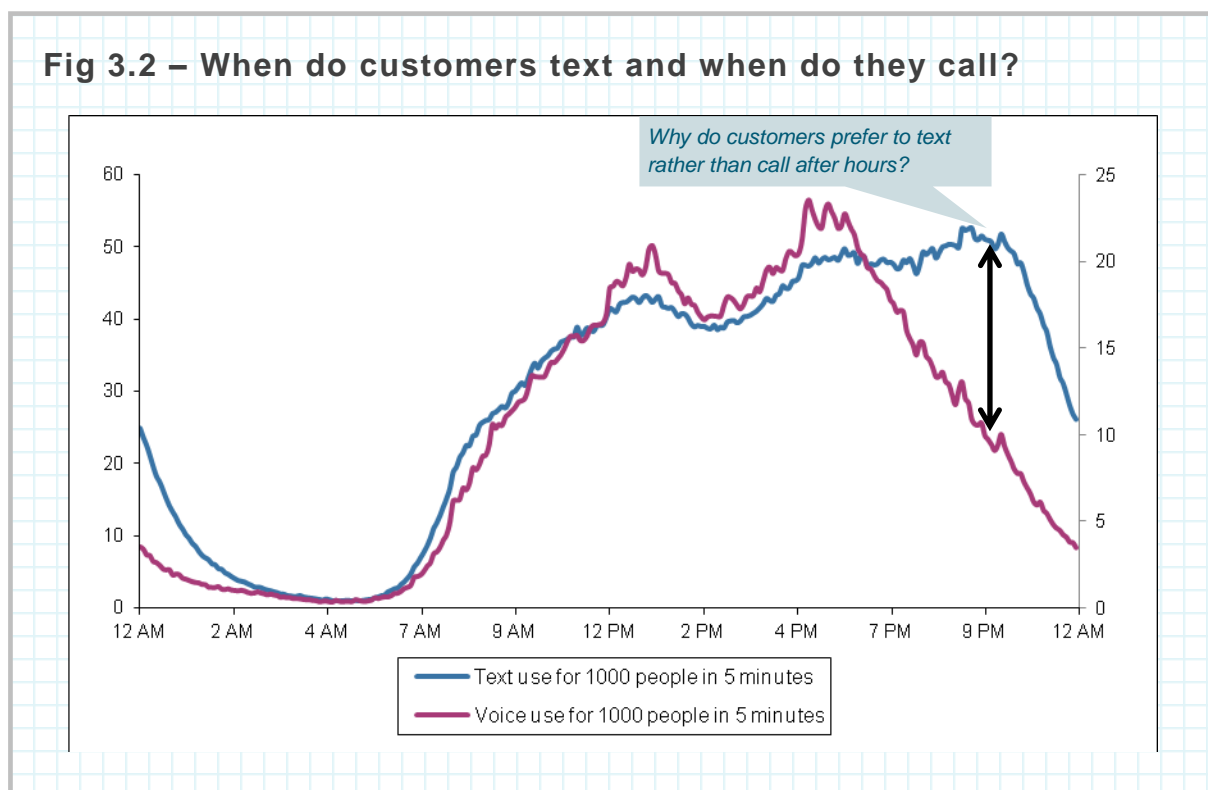
How do we call, text and browse on our mobiles – when in the day do we use our phones – and just how do men and women use their mobiles differently?

The popular depiction of the UK is of a nation obsessed with its mobiles – how does the true picture of our mobile usage look in comparison? Reality is more complicated but no less interesting. First of all, observe a normalised plot of the average customer activity across all different mobile usage types on an average day.

Fig 3.1 – How customers use their mobiles every day



Customers' mobile communication behaviour generally follows the circadian rhythm: a rapid escalation during the morning and a constantly increasing hum throughout the afternoon and evening, before dipping sharply during the night. In order to perform a more in-depth analysis of daily usage, billmonitor has specifically observed how often subscribers initiate a mobile call as opposed to sending a text, in order to compare the two behaviours which represent by far the most popular mobile phone activities.



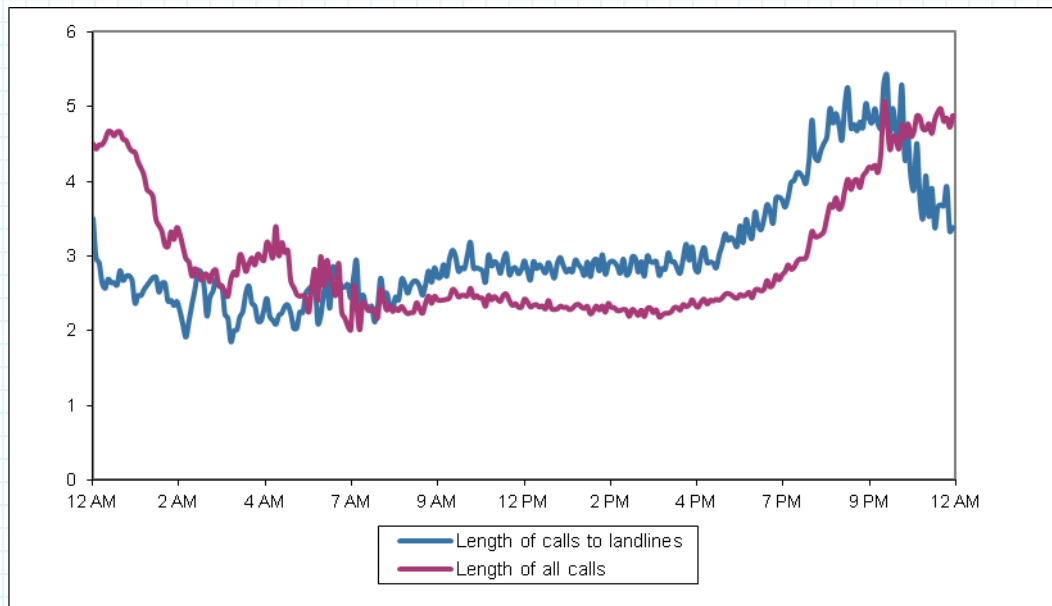
UK mobile subscribers text 2.7 times as often as they make calls from their mobiles. Both SMS and calling exhibit peaks of activity at lunchtime (1pm) and at close of work (between 5pm and 6pm), however after 6pm, the similarity in pattern ends. While the number of calls declines, customers increase their texting frequency, not reaching their peak time for SMS until 9pm, at which point frequency decreases rapidly.

This is not to say that customers prefer texting over calling. The average mobile call length is 2 minutes 35 seconds and customers call for 8 minutes a day on average. Since customers also send 8 texts per day, at an estimated one minute spent per text written, this means customers spend approximately the same amount of time on both texting and calling.

The average mobile call length given above may be misleading it varies significantly throughout the day and indeed compared to what number is being called –whether fixed line or otherwise.



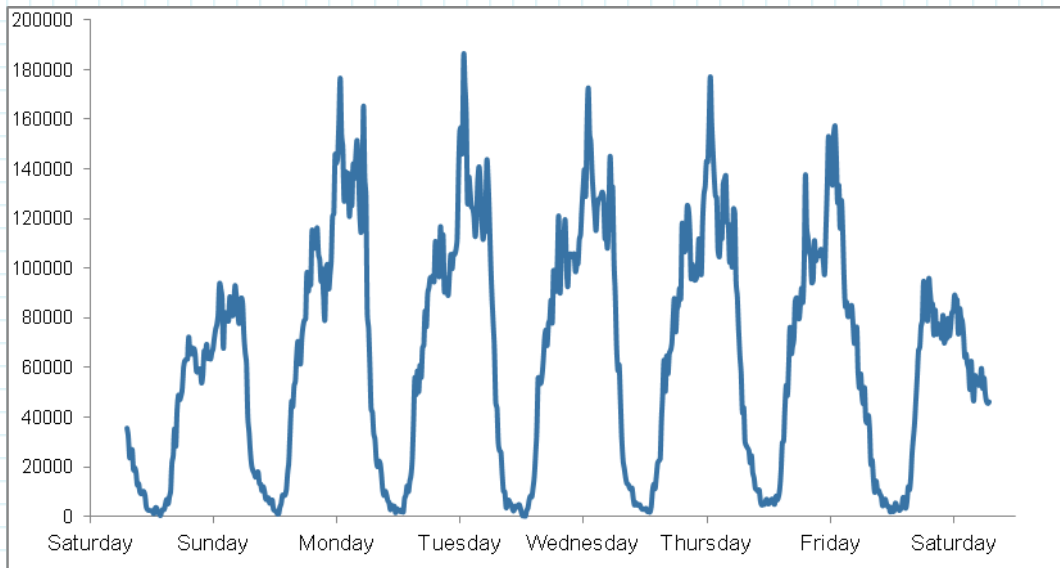
Fig 3.3 – How does call length change during the day?



Mobile calls to landlines are half a minute longer than the average mobile call. However, for both call types, the average call length is constant throughout the day until 6pm. Evidently, as the number of mobile calls declines, the amount people are prepared to talk goes up. In fact, call length more than doubles by 10pm for the average mobile call and remains that high until beyond 1am. In contrast, calls to landlines from mobiles get shorter after 10pm, presumably as people become mindful of disturbing others while at home.



Fig 3.4 – How do our calling habits change throughout the week?



Not only do our calling habits vary throughout the day – but the pattern for how our usage changes throughout the week is equally varied. Most weekdays follow similar patterns but on the weekend this takes a noticeable dip and we manage just 64% of the calls we make throughout the rest of the week. Curiously, it's Saturday night and Sunday morning when customers are least likely to make calls.

Fig 3.5 - From one extreme to another: the exceptional mobile users

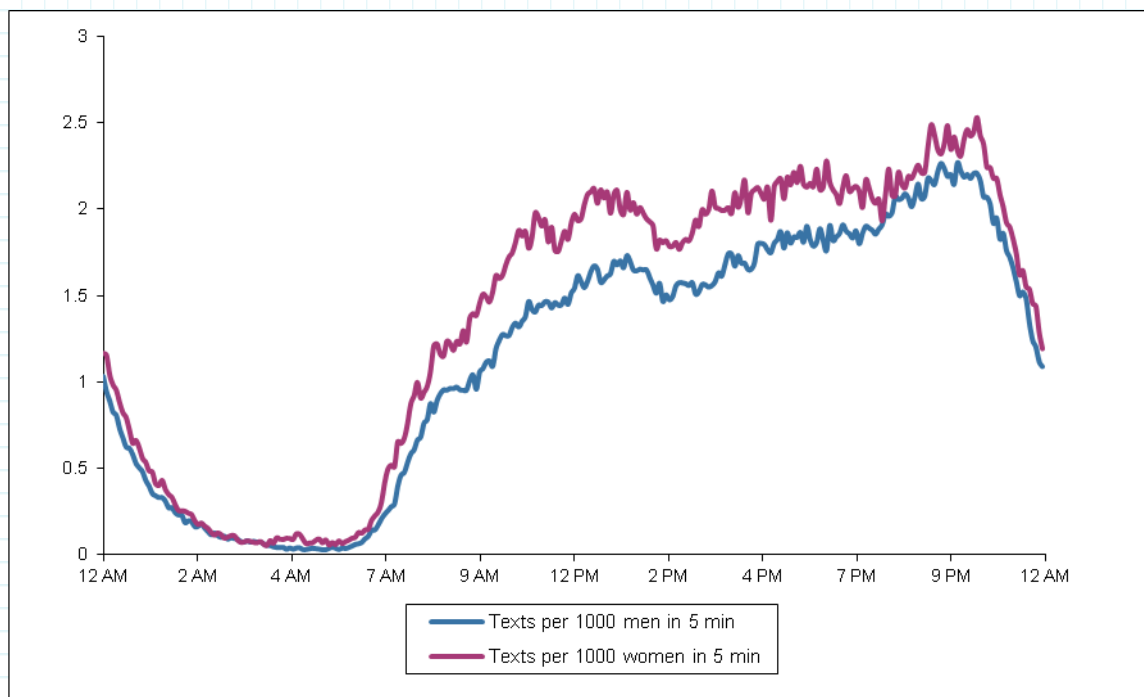
- ❖ The most talkative billmonitor users have been observed reaching almost a full week's worth of local calling in one month (that's almost a third of their waking hours on the phone!)
- ❖ The heaviest mobile data users have accrued over 6Gb in a month (the equivalent of streaming 6 full-length movies) – but perhaps more shocking are users who have used almost 2GB on their mobile while abroad in one month
- ❖ The most prolific texters seen by billmonitor have sent over 4,600 texts in one month– that's more than 153 texts a day
- ❖ billmonitor can only imagine what was going on for users who have spent over 6 hours in one month calling premium numbers
- ❖ ...billmonitor can also not comment on how users manage to send more than 2,700 premium texts in one month.
- ❖ On the other hand, it's fairly certain that customers who call for as much as 37 hours while abroad one month, care very little about how much it cost them.



Fig 3.5 – Does sex matter when it comes to mobile phone usage?

billmonitor cannot help observing differences between how men and women use their mobiles. For example, women's calls are on average 5 seconds shorter than men's – but they make 11 more calls a month (an extra half an hour longer each month). More significantly, women send 21% more texts than men – an average of 49 more texts a month.

Comparing women's and men's texting habits



At any given moment of the day, women are sending more texts than men. The difference is greatest between 8am and 8pm, after which point men are almost equally likely to text. The peak time for texting for men is half an hour earlier than for women.

Some additional notable gender comparisons across other mobile usage:

- ❖ Men use 1.5 times as much mobile data than women – 64MB more every month.
- ❖ Men's calls to Premium numbers are 1.5 times longer than women's – but women call twice as often.
- ❖ Women calling internationally from their mobiles call twice as long as men calling abroad.



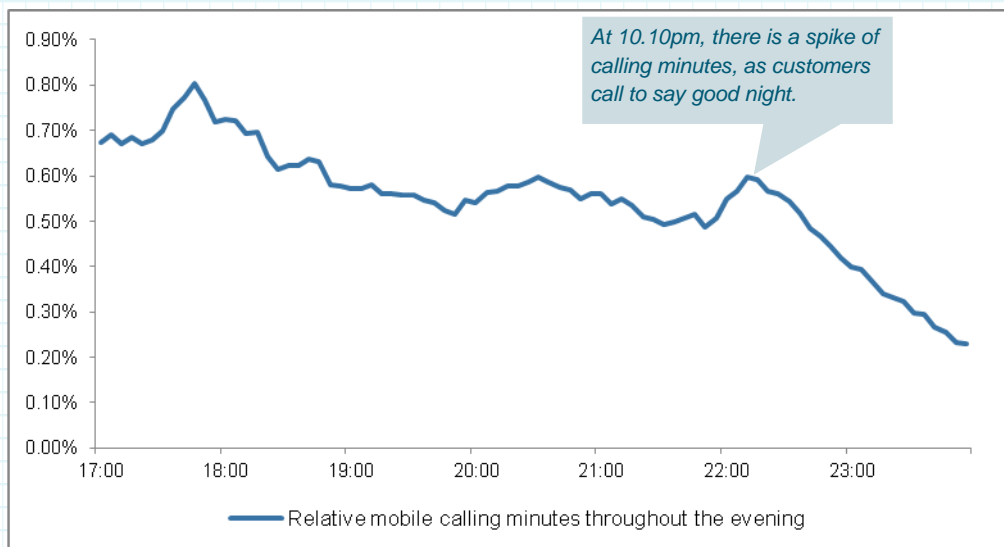
The difference between the top 5% and the remaining 95% is even greater for usage than for spending

The previous chapter exposed how 5% of customers were responsible for 50% of all spend on overages. This top-heavy pattern is even more pronounced for usage. The 95% majority who make roaming calls spend on average only 6 minutes on the phone every month – while the top 5% call for 26 times as long: 2 hours 45 minutes. The differential in spend between the top 5% and the remaining customers is only a factor of 17, which indicates that the top roaming callers have found ways to reduce, though by no means eliminate, their costs via appropriate roaming bundles or other inclusive roaming benefits offered with tariff (see Chapter 2, Fig 2.2).

Similarly, most UK subscribers use just 1.1MB of mobile data while abroad; enough to read a few e-mails and check a website a couple of times. On the other hand, the top 5% use 25.7MB a month; one sixth of the average data usage while in the UK. As people are rarely away every month – nor are they away for the entire month - the monthly average most likely reflects the fact that these customers continue using the internet on their mobiles at almost the same rate as when at home.

Not only does international calling follow a similar pattern, with the top 5% calling for 22 times longer than other customers but billmonitor has also observed that international calls, while less frequent, are on average 60% longer than ordinary local mobile calls. Given the high costs of international calls from mobile and availability of alternatives, this is certainly a surprise.

Fig 3.4 – When do people call to say goodnight?



Despite the overall decline in calling minutes as the day grows longer (beyond 6pm), there is a local spike at 10.10pm in the evening, indicating that this is the time subscribers choose to ring and say good night.