



National Farmers' Federation

**Submission to the
Regional Telecommunications Review**

10 August 2018

NFF Member Organisations



Australian Chicken Growers' Council Ltd





The National Farmers' Federation (NFF) is the voice of Australian farmers.

The NFF was established in 1979 as the national peak body representing farmers and more broadly, agriculture across Australia. The NFF's membership comprises all of Australia's major agricultural commodities across the breadth and the length of the supply chain.

Operating under a federated structure, individual farmers join their respective state farm organisation and/or national commodity council. These organisations form the NFF.

The NFF represents Australian agriculture on national and foreign policy issues including workplace relations, trade and natural resource management. Our members complement this work through the delivery of direct 'grass roots' member services as well as state-based policy and commodity-specific interests.

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Recommendations

Recommendation 1

That the 2018 Regional Telecommunications Review notes that full connectivity of Australian agriculture can increase the Australian economy by \$24.6 billion.

Recommendation 2

That the Australian Government commits to a National Strategy for Regional Telecommunications.

Recommendation 3

That the 2018 Regional Telecommunications Review supports the enactment of the Telecommunications Reform Package as soon as possible.

Recommendation 4

That the 2018 Regional Telecommunications Review asserts that alternative voice technologies must be proven effective and reliable beyond doubt before being considered as part of the future Universal Service Guarantee.

Recommendation 5

That communication strategies are developed by industry and the Australian Government re-asserting that the rights under the current USO continue to be in force.

Recommendation 6

That measures are undertaken by the Australian Government and telecommunications industry to ensure obligations under the current USO are actually met.

Recommendation 7

That the 2018 Regional Telecommunications Review notes the important role small network operators play in the regional telecommunications landscape, and consider their future role in a Universal Service Guarantee.

Recommendation 8

That the Australian Government commits to establishing a Rural Regional and Remote Telecommunications Research Fund.

Recommendation 9

That the 2018 Regional Telecommunications Review, and consequently the Australian Government, considers the above options as part of future programs to expand regional mobile coverage.

Recommendation 10

That the 2018 Regional Telecommunications Review endorses the work of the ACCC in developing transparent and consistent information about mobile coverage.

Recommendation 11

That Mobile Network Operators work with the ACCC to provide accurate mobile coverage mapping.

Recommendation 12

That the 2018 Regional Telecommunications Review develops an ongoing mechanism for monitoring regional telecommunications investment.

Recommendation 13

That the 2018 Regional Telecommunications Review supports the development of a co-invested project that aims to increase the digital literacy of rural, regional and remote users.

Recommendation 14

That future USG arrangements include mechanisms purely focused on regional telecommunications funding.

Recommendation 15

That mechanisms for regional funding under a future USG are also imbedded in a National Regional Telecommunications Strategy.

Executive Summary

The National Farmers' Federation (NFF) welcomes the opportunity to make a submission to the Regional Telecommunications Review 2018. We consider the review to be a critical mechanism to ensuring that regional communications remains a constant focus of governments and service providers. Holding the review every three years as is legislated is critical and it is vital that this continues.

Access to quality communications consistently ranks as one of, if not, the highest priority of our members.

To achieve NFF's vision of a \$100 billion dollar agricultural industry, the sector deserves well-developed initiatives and reforms that will assist public policy settings in fostering growth and productivity, establishing a new market of opportunity and championing innovation and ambition. This includes adequate connectivity in order to capture the next generation of farming technology.

Access to reliable, affordable, quality telecommunications underpins the viability of regional development and farming businesses across Australia. Allowing farming and regional families access to the digital economy through business development, education services and social connectivity is required if a region is to grow, improve and sustain.

The NFF is one of the founding organisations of the Rural, Regional and Remote Communications Coalition RRRC Coalition. NFF has joined the coalition as there is a critical mass of organisations, ranging from relatively established lobby groups through to fledgling volunteer interest groups, which are advocating on similar access and service quality issues for rural and regional telecommunications users.

The breadth and number of organisations involved highlights that telecommunications in the rural, regional and remote areas is critical. Regional communities continue to face difficulties in accessing affordable quality telecommunications.

The National Farmers Federation were delighted that Senator the Hon Bridget McKenzie saw fit to include Ms Kylie Stretton and Ms Johanna Plante, both representatives of the RRRCC on the review panel.

Reliable broadband and telephone services are not only essential for survival in the Australian bush, they are also crucial to the creation of new opportunities in agriculture. State-of-the-art tools such as Big Data and fast internet greatly increase on-farm productivity by enabling farmers to digitally analyse soil moisture, meteorological records and satellite imagery.

The rollout of the National Broadband Network (NBN) and the Mobile Blackspot Programme have significantly improved telecommunications in rural and regional Australia. However, the 2015 Regional Telecommunications Review established that there are currently still

communication infrastructure shortfalls in regional Australia, relating to limited coverage, poor data speeds and limited competition between different telecommunication carriers.

The NFF asserts that these shortfalls continue and that there is still much work to be done to ensure a truly connected agricultural sector and the regional communities that it supports.

The potential of connected Agriculture

A recent collaborative research project, Precision to Decision: Accelerating Precision Agriculture to Decision Agriculture – Enabling Digital Agriculture in Australia found that:

“If decision agriculture was fully implemented it would deliver an estimated boost to the value of agriculture of 25% (\$20.3 billion) and lift the Australian economy by an estimated 1.5% (\$24.6 Billion).”

To put this statement in context, currently the Australian agricultural sector is valued at approximately \$60 billion. To put in another way, agriculture is currently only reaching 75% of the potential it could reach if it was enabled to fully participate in the digital economy.

It is often assumed that the key benefit of digital technologies for agriculture will be automation. While this will be a significant benefit for the sector, there are many more benefits for the sector such as:

-) Real time monitoring of production which can lead to improvements in the quality of produce – Australia’s strength in global markets;
-) Digitisation and transparency of supply chains will enable the transfer of information readily between transactions, and streamlined record-keeping for quality assurance purposes;
-) Improved traceability for biosecurity purposes; and
-) Agritech start-ups that the benefit of being embedded in the operating environment that their product aims to service.

Recommendation 1

That this review notes that full connectivity of Australian agriculture can increase the Australian economy by \$24.6 billion.

Regional Telecommunications Survey

In preparing this submission the NFF and its members conducted a survey. The survey received 750 responses and the outcomes of this survey have been used to inform examples throughout this submission. The NFF thanks its members for distributing the survey and also participants that have taken the time to respond.

The full survey results are [Attachment A](#) for reference. The key findings of the survey are as follows:

Cost of being connected

-) 27% spend over \$400 per month on landline and mobile bundles.

-) 50% spend between \$50 and \$99 per month solely on an internet connection
-) 38% spend \$50 - \$99 per month solely on maintaining their landline service

Landline use

-) 55% of respondent use their landline daily with business being the predominant purpose (75%)
-) Critically, 39.4% reported using their landline for emergency situations
-) 79% rely on their landline even though they have a mobile phone or internet connection
-) When asked what would be their biggest requirement of any alternative voice technology reliability was the major theme.

Internet use

-) 49% of respondents were connected to the nbn - 76% of these were connected via sky muster
-) 30% believed their nbn connection had improved in the last three years – 17% believed it has become worse
-) 36% are somewhat satisfied by their nbn service
-) Of those not connected to the nbn:
 - o 44% believe it is unavailable to them
 - o 32% connect to the internet via the 3G network

Mobile voice

-) 30% report constant mobile voice coverage on their farm
-) 34% have installed antennas to improve their mobile coverage
-) 39% report their mobile voice quality has stayed the same
-) 32% report that it has got worse

Mobile internet

-) 33% report constant coverage on-farm
-) 88% use mobile data for business

Internet use generally

-) The top five tasks internet is used for are:
 - o Email (97%);
 - o Banking (92%);
 - o Weather services (71%);
 - o Commodity market reports and commodity trading platforms (72%)
 - o Social media (63%)

Digital Literacy

-) The biggest barrier to adopting new technologies is internet connection quality (69%)
-) Most respondents learn to use technologies either by user experience (88%) or from their peers (82%)

A National Regional Telecommunications Strategy

One of the perennial challenges of regional telecommunications is the need for a coordinated approach to regional telecommunications.

The NFF holds the view that regional telecommunications should not be a political issue and is an issue that require bipartisan support to be addressed meaningfully and sustainably.

As the mix of service technologies continues to grow to include landlines, nbn satellite, nbn and independent fixed wireless, mobile networks and potentially alternative voice technologies, it has become apparent to the NFF and its members that there is a need for a national strategy to ensure regional Australia, and particularly the Australian agricultural sector can have the services required to capitalise on their potential.

The NFF asserts that a key outcome of the 2018 Regional Telecommunications Review is a commitment from the Australian Government to a National Strategy for Regional Telecommunications.

While it imperative we continue to review the state of regional telecommunications every three years, what is desperately need is a roadmap towards full connectivity, and the necessary steps that are needed to fulfil this vision.

The national strategy would be akin to a national policy statement with key deliverables for the implementation. The strategy would be a medium to long term vision for regional telecommunications and could help inform processes such as:

-) the Universal Service Guarantee implementation;
-) programs that expand mobile coverage, such as the current Mobile Blackspots Program
-) the potential rollout of alternative voice technologies;
-) increasing digital literacy;
-) recognising and ratifying the role of bespoke network providers; and
-) Informing the regulatory frameworks that will create a conducive environment for technology adoption.

Recommendation 2

That the Australian Government commits to a National Strategy for Regional Telecommunications.

Universal Service Guarantee

The NFF acknowledges that the terms of reference for this review do not strictly extend to the consideration of a future Universal Service Guarantee (USG). However, the outcome of this reform process are going to be incredibly important to the future regional telecommunications landscape.

For many of our members, their telecommunications services would be deemed uncommercial unless the Universal Service Obligation was in place. This is a critical policy piece for Regional Telecommunications and one that must form a key consideration in the rollout of a national strategy.

The NFF welcomed the Australian Government’s announcement in December 2017 that it would look to reform the current USO arrangements and transition to a Universal Service Guarantee to align with the completion of the nbn rollout.

The most positive aspect of this policy is the fact that high-speed broadband will be guaranteed service for Australians. However, there are a number of issues that need to be addressed, which is incumbent on the Regional Review Panel to consider, particularly:

-) the future of voice services,
-) ensuring current USO obligations are met,
-) what role smaller bespoke network providers can play and
-) the future funding arrangements of the USG.

Guaranteeing Broadband Services

The NFF has long held the view that all Australians have a right to access reliable broadband. To this end, the NFF has consistently advocated for a baseline broadband service to be part of the telecommunications Universal Service Obligation (USO).

The National Farmers’ Federation (NFF) supports the Telecommunications Legislation Amendment (Competition and Consumer) Bill 2017 and the Telecommunications (Regional and Broadband Scheme) Charge Bill 2017 – collectively known as the Telecommunications Reform Package (“the reform package”). It is NFF’s desire for the legislation to be enacted as soon as possible.

The NFF understands the reform package will guarantee access to data networks for all premises through the Statutory Infrastructure Provider (SIP). This is important as, while the mandate of the nbn to deliver broadband to all Australians, there has previously not been a statutory requirement to do so. In effect, this package will legally ensure all Australians will have access to broadband infrastructure.

In addition, NFF is pleased that the package contains a requirement that all premises must be able to access a network that is capable of offering a peak download speed of at least 25Mbps and an upload speed of 5Mbps. We are also keen to ensure that services and data allowances continue to evolve to the changing needs of consumers and the legislation must be flexible enough to reflect that.

The NFF is very supportive of the Regional Broadband Scheme (RBS) which we believe will ensure Regional services are funded sustainably and transparently. The idea behind the RBS is to sustainably fund the long term costs of uncommercial satellite and fixed wireless networks in rural, regional and remote Australia. The NFF seeks to temper any concerns that investment in uncommercial telecommunications infrastructure is potentially distortionary to competition.

To simplify the rationale for investment to this extent is short-sighted and fails to consider long term economic benefit to the country – even from agricultural productivity alone. The NFF believes that both government and industry can collaboratively play a significant role in funding uncommercial infrastructure provided the framework is holistic and encompasses the suite of processes that are presently occurring in the telecommunication field. A levy is, in many ways, the most logical and equitable means of seeking an industry contribution.

Recommendation 3

That the 2018 Regional Telecommunications Review supports the enactment of the Telecommunications Reform Package as soon as possible.

Ensuring reliable voice technologies

There remains much consternation about proposals for voice services to be transitioned to national broadband network (nbn) infrastructure. Much of this revolves around the fact that the sky muster satellite service remains currently too unreliable to be considered a meaningful alternative to copper landlines (nor was sky muster designed for voice services).

The NFF maintains that the current copper continuity obligation should be maintained as a transitional measure until such a point in time that reliability of voice can be guaranteed via another means – whether this be via satellite or via other technologies.

However, beyond copper being an interim measure, this does raise a long term issue about maintaining a legacy technology should voice eventually transition to nbn's fibre and fixed wireless technologies.

It is clear that significant research into the reliability of alternatives to copper technology must be invested into, and invested into significantly. When all is said and done, rural regional and remote telecommunication users will rightfully question the reliability of new technology.

It is imperative that should the Australian Government move away from copper technology for voice services in the future, that the reliability of new alternative technologies must be proven beyond doubt. Voice services are literally a lifeline for many people – this lifeline must not be handled speculatively.

The NFF asserts that this is further basis for the development of a National Regional Telecommunications Strategy and the implementation of a Rural Regional and Remote Telecommunications Research Fund.

Recommendation 4

That the 2018 Regional Telecommunications Review asserts that alternative voice technologies must be proven effective and reliable beyond doubt before being considered as part of the future Universal Service Guarantee.

Ensuring maintenance of existing USO arrangements

Following the announcement of the USG reform, one of the issues the NFF and its members have been managing is confusion about whether the current USO arrangements continue to be in place. Much of the confusion stems from a misunderstanding that the new USG arrangements are in place. Given the public discussion about the future of landlines that was associated with the USG announcement this has caused considerable anxiety.

The NFF has also received anecdotal representations concerned that investment and maintenance of existing USO services may begin to decrease as USG implementation nears.

The NFF considers that in the short-term efforts need to be made collectively by representative organisations, the telecommunications industry and governments to clarify that the USO remains very much in place, and these services will continue to be committed to until USG arrangements are agreed and implemented. It also remains incumbent on services to continue to maintain these services in the interim.

The NFF and the RRRCC have received anecdotal representations that the existing USO obligations are not being met, and that the industry focussed nature of the obligation allows the telecommunications industry to avoid penalty – eg if there is a mass disruption somewhere in Australia, Telstra is not obliged to meet the USO requirements.

Recommendation 5

That communication strategies are developed by industry and the Australian Government re-asserting that the rights under the current USO continue to be in force.

Recommendation 6

That measures are undertaken by the Australian Government and telecommunications industry to ensure obligations under the current USO are actually met.

A future role for small network providers

The NFF is aware that is a growing network of companies offering small bespoke network solutions particularly in remote Australia. Quite often these providers enter the market because they offer low-key cost effective infrastructure solutions and extend the footprint of the existing network, by essentially piggy-backing off it.

There has been significant discussion recently given much of the spectrum these providers operate on has been earmarked for 5G. The NFF does not offer a view regarding the current 3.6 Hz spectrum allocation process.

However, the NFF does considers that, consistent with the need for a national strategy, policy makers should begin to turn their mind to whether these network providers can be better utilised, and their role preserved, in a future USG. This is particularly important given their capacity to extend existing network footprint thresholds through innovative and cost-effective solutions.

Incorporating these smaller player into broader strategic and policy considerations will have the added advantage of providing further competition into the regional market, but not at the expense of infrastructure investment given their reliance on the existing network.

Recommendation 7

That the 2018 Regional Telecommunications Review notes the important role small network operator play in the regional telecommunications landscape, and consider their future role in a Universal Service Guarantee.

Future Funding arrangements for the USG

The Telstra Universal Service Obligation Performance Agreement (USO Agreement) sets out the scope of services to be performed by Telstra in delivering standard telephone services and payphone services under the USO. The agreement is in place until 2032.

Given the nbn is anticipated to be complete by 2020, presumably voice services would transition before 2032 when the current agreement is anticipated to be complete. This could potentially lead to a scenario where significant funding is being devoted to maintaining latent infrastructure. With this in mind the NFF strongly urges all parties to come to the table with a view to engaging in meaningful USO reform.

While the NFF acknowledges that that there are many outcomes and decisions that will affect any ultimate outcome around USO reform, the NFF proposes that the government commits to establishing a Rural Regional and Remote Telecommunications Research Fund. Given the Regional Broadband Scheme provides a sustainable funding mechanism for broadband (and potentially voice) infrastructure, the fund could be utilised for research and development into alternate telecommunications infrastructure and technology innovations.

Ideally, the Fund would be a combination of Australian Government, the telecommunications industry and rural, regional and remote stakeholders, collaborating to provide the best outcome for the end user. This fund would form part of the National Regional Telecommunications Strategy.

Recommendation 8

That the Australian Government commits to establishing a Rural Regional and Remote Telecommunications Research Fund.

Mobile Coverage

Increasing Mobile Coverage

Alongside access to high-speed broadband, increasing mobile coverage is a fundamental need for Australian agriculture. The recent ACCC inquiry into wholesale mobile roaming highlighted the need for solutions to expand mobile coverage.

Mobile coverage is vital to not only agricultural productivity, but also developing the sustainability of our regional communities.

The NFF has been a supporter of the mobile blackspots program since its inception. It was disappointing that a commitment to subsequent MBSP Rounds was not forthcoming in the 2017- 18 Budget. However, we were delighted that a fourth round has been committed by the Australian Government from uncommitted funds.

The NFF is conscious that the construction pipeline for towers is considerable, as is the sheer scale of the program. The NFF is also conscious that in many areas coverage is encroaching on the commercial threshold of the development of farming enterprises. Further, given the seeming reluctance of telecommunication retail service providers to extend coverage at the pace at which rural consumers desire, the Federal Government's Mobile Black Spot Programme (MBSP) will be critical in facilitating this expansion of coverage.

While we are ardent supporters of the program, it is clear that the construct of the program will need to evolve. The NFF considers that some possible options for future program guidelines that should be considered include:

-) A role for all three tiers of government in the process – this will benefit not only the infrastructure planning process, but also offer greater autonomy for partnerships between communities, government and telecommunications companies.
-) Stronger emphasis on community engagement in the application process.
-) Greater emphasis on applications that prioritise infrastructure sharing.
-) Scope to include smaller and more cost-effective infrastructure investments such as small cells.
-) Opportunity for novel connectivity solutions such as those offered by small-scale bespoke network operators to have program funding available.
-) Greater scope for the funding mix to be flexible depending on the critical need of the infrastructure and the strength of the application.

Recommendation 9

That the 2018 Regional Telecommunications Review, and consequently the Australian Government, considers the above options as part of future programs to expand regional mobile coverage.

Mobile Coverage and Accuracy

The Australian Competition and Consumer Commission's (ACCC's) Mobile Roaming Service Inquiry repeatedly emphasises that consumers in rural, regional and remote areas have a high rate of reliance on mobile and internet services, however connectivity is well below what is demanded by farm and regional businesses.

We note the ACCC's proposed action of approaching industry directly to develop more transparent and consistent information about networks and services as well as metrics to ascertain tower performance. We are very supportive of this measure and look forward to timely progress by mobile network operators (MNO).

There are two particular reasons why accuracy of mobile coverage is important:

-) Regional consumers, just like any other consumer, have a right to purchase products that are fit for purpose; and
-) In a strategic sense, accurate information is needed to inform communities and governments of coverage needs and how best to address those needs.

Recommendation 10

That the 2018 Regional Telecommunications Review endorses the work of the ACCC in developing transparent and consistent information about mobile coverage.

Recommendation 11

That Mobile Network Operators work with the ACCC to provide accurate mobile coverage mapping.

Monitoring Regional Investment

One of the great frustrations for NFF's members is the lack of accountability currently in place to track network investment announcements in regional Australia. Investment announcements are eagerly anticipated and welcomed by the NFF and its members.

While we acknowledge market disclosure mechanisms within the ASX notionally prevent misleading information entering the market, the NFF would endorse mechanisms that report directly to regional consumers on investment progress.

Ideally, this mechanism would become part of the national strategy.

Recommendation 12

That the 2018 Regional Telecommunications Review develops an ongoing mechanism for monitoring regional telecommunications investment.

Digital Literacy

One of the fundamental principles of the agricultural sector adopting digital technologies, is ensuring that people within the sector have the adequate skills and understanding of technologies that are available to them.

There are a number of studies that point to a lack of basic understanding of various ways to connect can be an inhibitor to technology adoption. There is a desperate need for digital literacy targeted at farmers that can assist them to navigate through the basic connection level phase of installation, and carry them through to understanding the capabilities of their connections and adopting new technologies.

The NFF believes that as connectivity improves, there is a burgeoning market for adaptive technologies with significant potential for organic growth – however this market must be fostered.

Across the agricultural sector there exists a considerable network of extension capability that assists farmers with implementing on-farm research and development. There is significant potential to leverage this network and introduce a digital element to the application of on-farm innovations. The findings of the NFF survey support such an approach as the survey indicated most farmers increase their knowledge from peer-to-peer learning.

A co-investment model involving funding from the Australian Government, telecommunications industry and agriculture would represent a workable model going forward.

For the information of the Review Committee, the NFF has been involved in two industry-led initiatives aimed at increasing digital literacy amongst farmers:

-) The NFF has entered into a formal partnership arrangement with nbn which aims to utilise the NFF's AustralianFarmers Digital Platform to share content about how best to utilise the nbn and to share the potential the nbn offers.
-) AgForce Queensland, with the support of NFF and members of the RRRCC developed a Telecommunications Innovation Project (TIP) in an effort to bridge the digital divide and build digital literacy. The aims of the TIP are:
 - o to relieve, improve and expand the services of Better Internet for Rural, Regional and Remote Australia (BIRRR) volunteers to strengthen telecommunications service provision to RRR Australians;
 - o to provide an industry contact for RRR residents who have challenges using telecommunications;
 - o to centralise issues identification and problem solving, and facilitate knowledge sharing across stakeholders, geographical areas and industries; and
 - o to maximise use of existing resources of service providers/government and only fill genuine gaps.
 - o In order to achieve the aims of the project, there would be a focus on:
 - identifying barriers to, and constraints of, RRR telecommunications usability;
 - connecting RRR Australians with people who can help them resolve telecoms technical issues;
 - empowering users to understand their telecommunications needs and options;
 - collaborating with users and providers to devise solutions for improving business and social outcomes;
 - Sharing these learnings across stakeholders and industries.

Investment in the TIP has not been secured, despite both Government and industry being offered the opportunity to collaborate with industry on this project.

Recommendation 13

That the 2018 Regional Telecommunications Review supports the development of a co-invested project that aims to increase the digital literacy of rural, regional and remote users.

The National Broadband Network

Rollout Concerns

It is fair to say that for a number of consumers the rollout has not been ‘seamless’. From understanding how and when they will be affected, to choosing providers and plans, arranging connection, overcoming difficulties of complex connections using the service, to finding causes and solutions to faults and outages; the span of issues is vast.

Particular to the rollout of the NBN has been the challenge of many issues ‘falling between the cracks’ of NBN Co, hardware installers, and internet service providers. It is often quite difficult for an individual user to ascertain whether the issue they are facing is one from NBN Co or the retail service provider, and the lack of a single contact point to assist differentiate makes the process to achieve connectivity a frustration for many.

There has been a Senate inquiry into the rollout of the NBN, which both NFF, RRRCC and member organisations presented to, and the NFF is focussed on the ongoing NBN connections and packages.

The majority of NFF’s members will be connected to the NBN either by fixed wireless or Sky muster services. Feedback to NFF generally suggests that fixed wireless users have had a positive experience with good reliability of service, but unfortunately many Sky muster users have had highly varied experiences. However attitudes towards Sky muster are shifting as more and more people become connected and begin to utilise it to its potential, including cloud computing and videoconferencing. Frustration at the limited footprint of the fixed wireless network has been evident, and has resulted in Wireless Internet Service Providers (WISPs) filling the ‘gap’ for some.

It is unfortunately the case that some users have disconnected Sky muster and gone back to their previous arrangement (such as wireless internet from one of the major telecommunications companies) for internet services due to a poor user experience.

Anecdotal feedback from Sky muster customers also indicates that internet speeds can vary dramatically, some service providers have not been able to establish and/or connect to VoIP services, and connections can often drop out.

It must be acknowledged that NBN has made considerable efforts and taken many positive steps to engage the sector given the issues that have been encountered during the Sky muster rollout and have undertaken taken to work through issues as they arise. Examples of measures that have been welcomed by the NFF include:

-) The introduction of nbn local;
-) Increasing the monthly data packages available;
-) Establishing a regionally focused landing page for regional customers which addresses common regional connection issues such as non-standard installations; and
-) Plans to introduce business satellite services as a commercial product for rural regional and remote businesses.

Future Funding for Regional Telecommunications

Of course one of the critical answers that must be answered in seeking to improve regional telecommunications is – how do you pay for it and who pays for it?

We are cognisant that solutions cost – and in the instance of regional telecommunications the cost are dramatic.

The NFF notes there are a number of funding mechanisms already in place or soon to be in place, including:

-) The current industry/government co-funding arrangements for the USO;
-) The Australian Government’s investment to construct the nbn;
-) The mobile blackspots program for funding mobile infrastructure; and
-) The Regional Broadband scheme will provide a mechanism for funding uncommercial high-speed broadband infrastructure.

As we enter into a paradigm where future USG arrangements are being developed, the nbn rollout is completed and the construct of programs for expanding mobile coverage are revised, it is timely for the future architecture of regional telecommunications funding is considered to ensure that funding is coordinated and as efficient as possible. The NFF proposes that future USG arrangements includes a proportion of funding that is purely for regional telecommunications, and the spending of which is guided by pre-eminent trustees that have expertise in regional telecommunications infrastructure.

A National Strategy for Regional Telecommunications would be the appropriate vehicle to imbed such a mechanism.

Recommendation 14

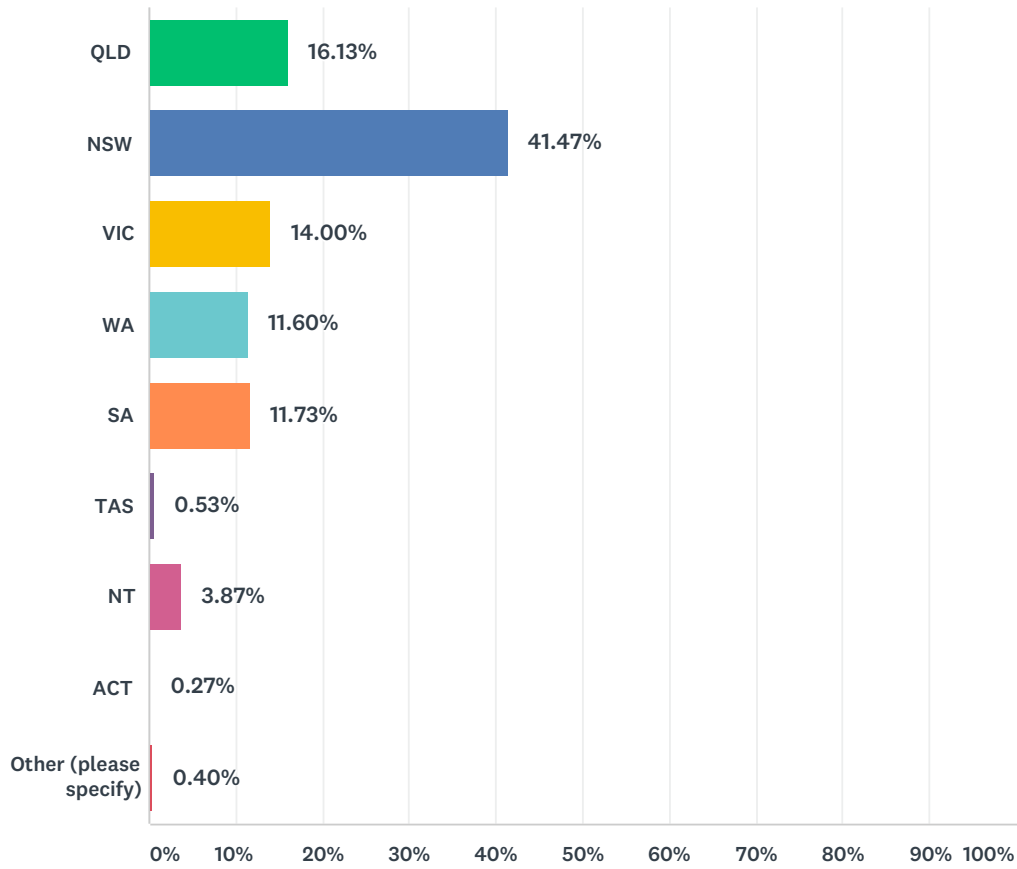
That future USG arrangements include mechanisms purely focused on regional telecommunications funding.

Recommendation 15

That mechanisms for regional funding under a future USG are also imbedded in a National Regional Telecommunications Strategy.

Q1 Which state do you live in? Note: Select one only.

Answered: 750 Skipped: 4



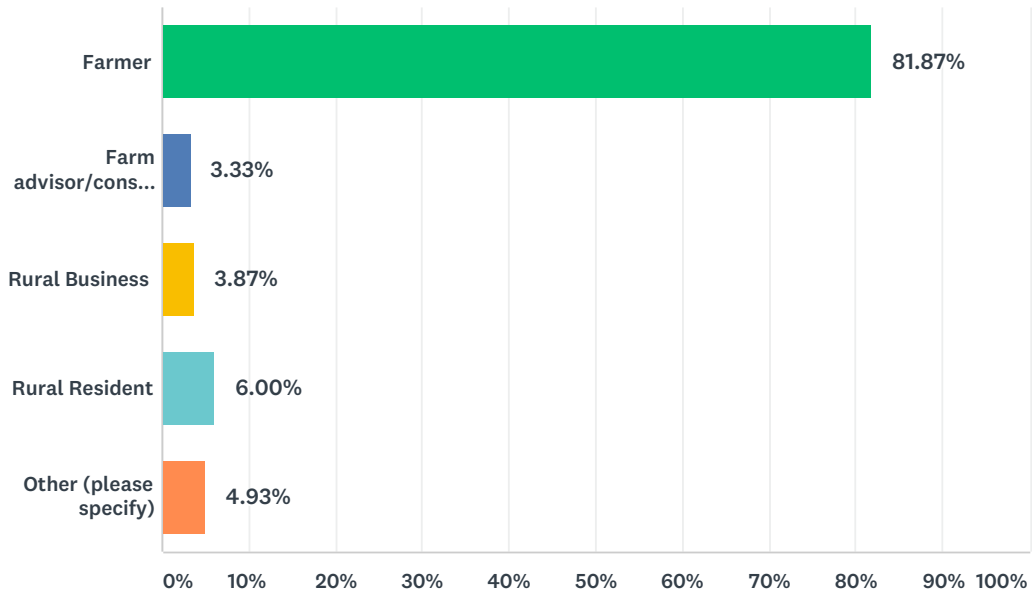
ANSWER CHOICES	RESPONSES	
QLD	16.13%	121
NSW	41.47%	311
VIC	14.00%	105
WA	11.60%	87
SA	11.73%	88
TAS	0.53%	4
NT	3.87%	29
ACT	0.27%	2
Other (please specify)	0.40%	3
TOTAL		750

Q2 What is your post code?

Answered: 748 Skipped: 6

Q3 Which of the below best describes you?

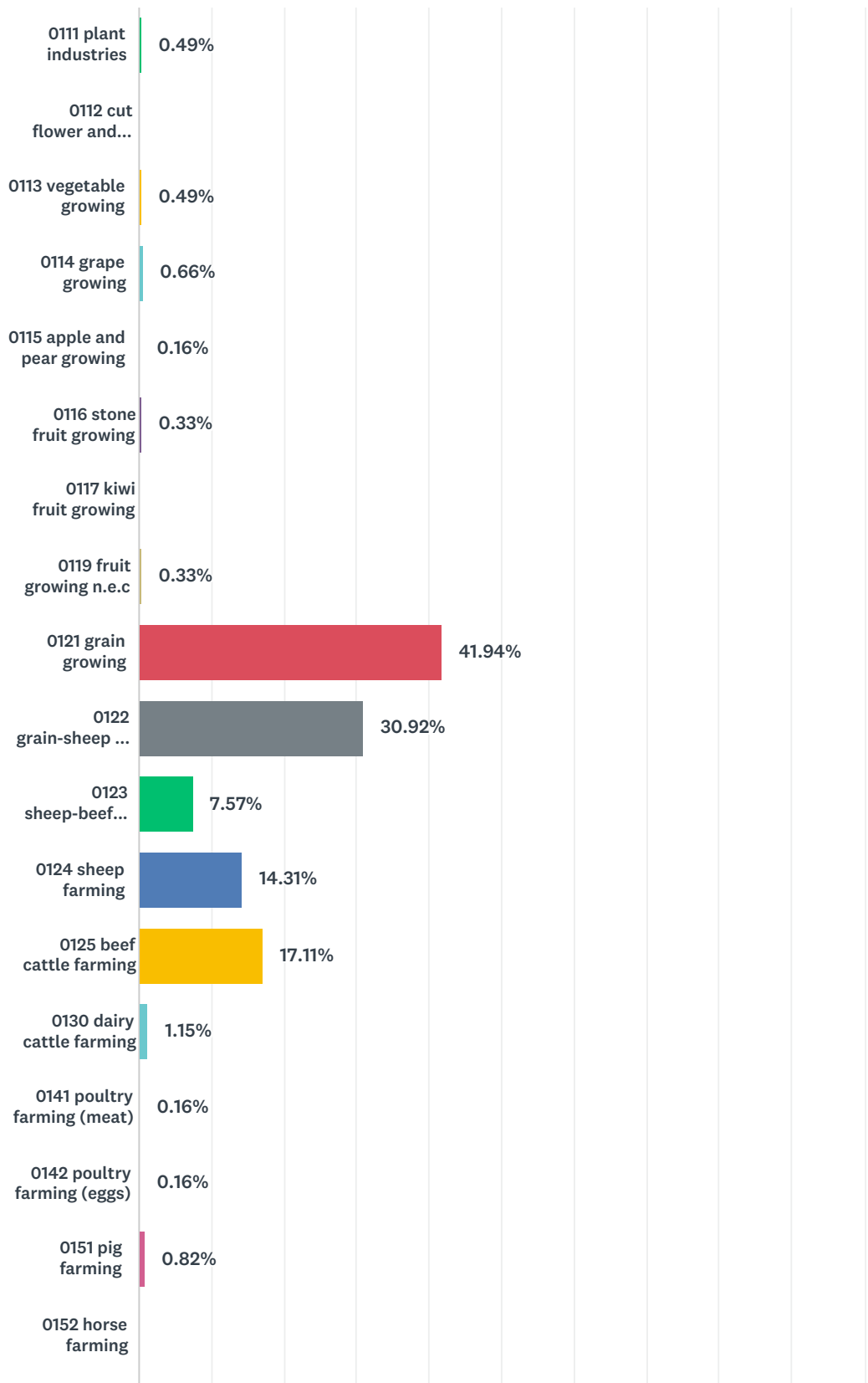
Answered: 750 Skipped: 4

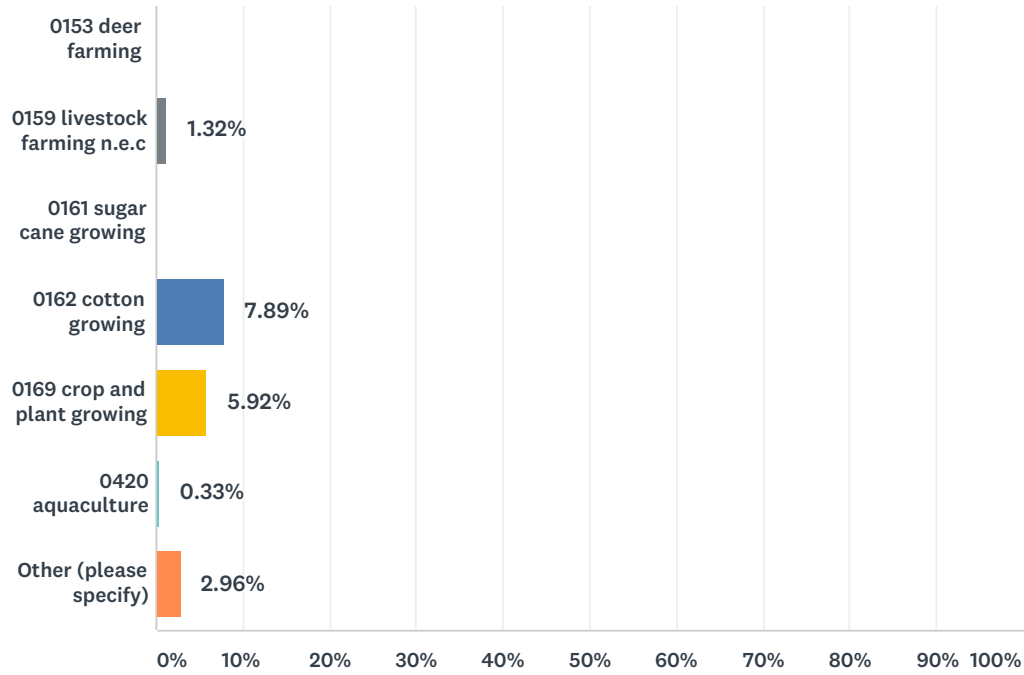


ANSWER CHOICES	RESPONSES	
Farmer	81.87%	614
Farm advisor/consultant	3.33%	25
Rural Business	3.87%	29
Rural Resident	6.00%	45
Other (please specify)	4.93%	37
TOTAL		750

Q4 Please select the Australia and New Zealand Standard Industrial Classification (ANZSIC) for Agriculture code that applies to you.

Answered: 608 Skipped: 146



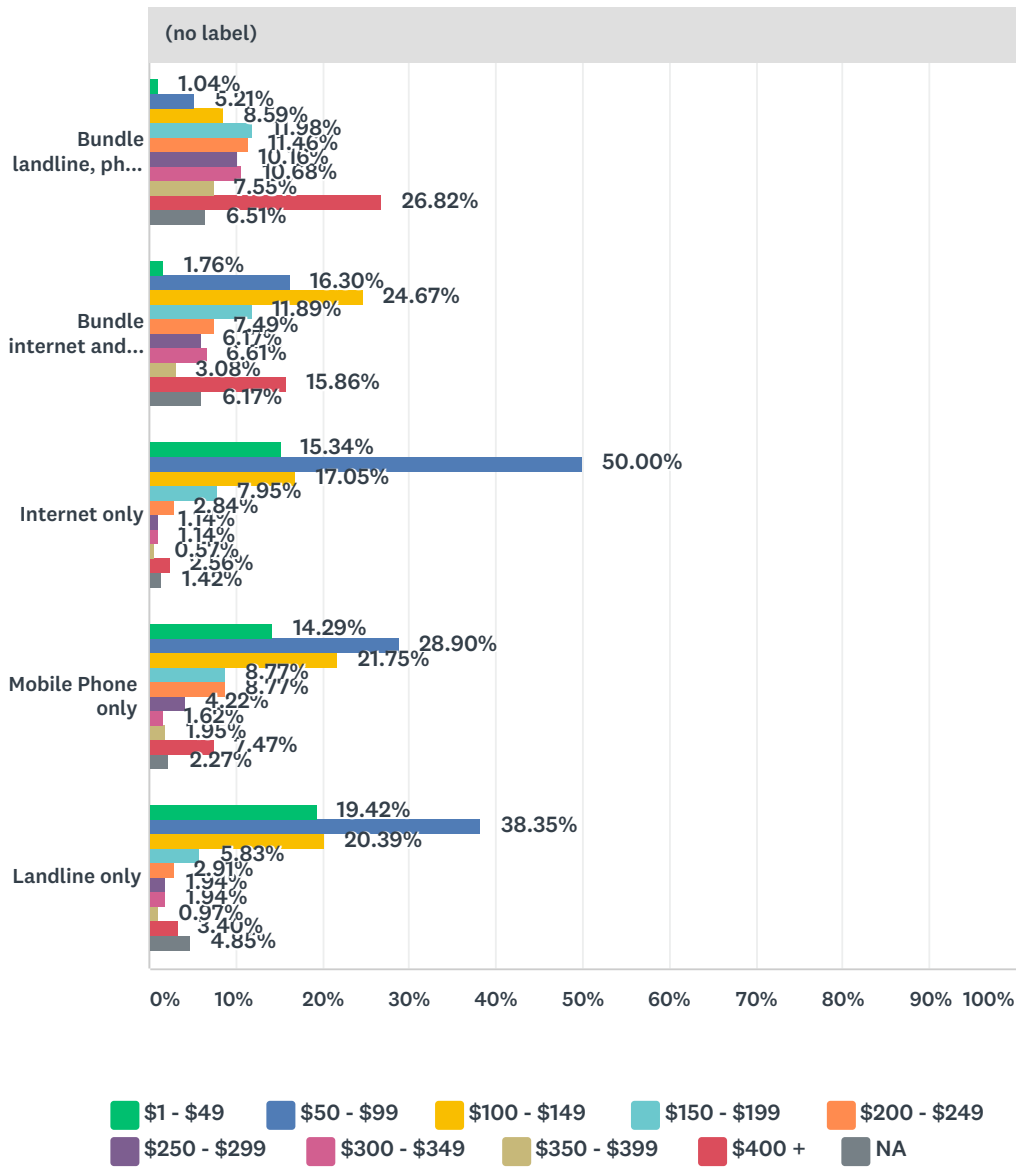


ANSWER CHOICES	RESPONSES	
0111 plant industries	0.49%	3
0112 cut flower and flower seed growing	0.00%	0
0113 vegetable growing	0.49%	3
0114 grape growing	0.66%	4
0115 apple and pear growing	0.16%	1
0116 stone fruit growing	0.33%	2
0117 kiwi fruit growing	0.00%	0
0119 fruit growing n.e.c	0.33%	2
0121 grain growing	41.94%	255
0122 grain-sheep and grain-beef cattle farming	30.92%	188
0123 sheep-beef cattle farming	7.57%	46
0124 sheep farming	14.31%	87
0125 beef cattle farming	17.11%	104
0130 dairy cattle farming	1.15%	7
0141 poultry farming (meat)	0.16%	1
0142 poultry farming (eggs)	0.16%	1
0151 pig farming	0.82%	5
0152 horse farming	0.00%	0
0153 deer farming	0.00%	0
0159 livestock farming n.e.c	1.32%	8

0161 sugar cane growing	0.00%	0
0162 cotton growing	7.89%	48
0169 crop and plant growing	5.92%	36
0420 aquaculture	0.33%	2
Other (please specify)	2.96%	18
Total Respondents: 608		

Q5 On a monthly basis, how much do you spend on your various connections? Connection types include:

Answered: 700 Skipped: 54



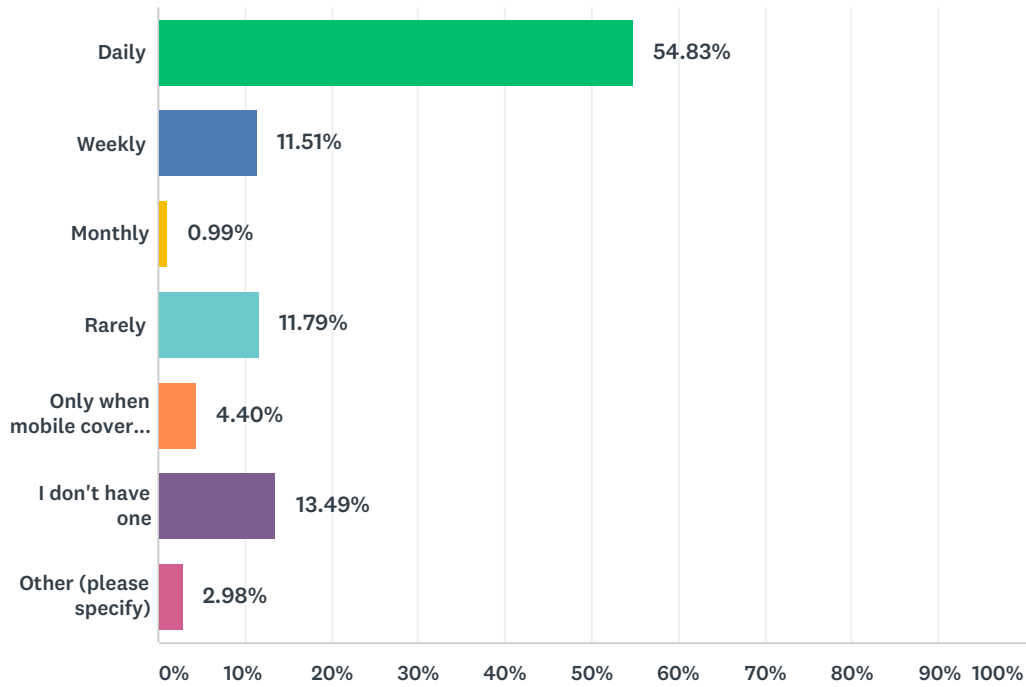
(no label)

	\$1 - \$49	\$50 - \$99	\$100 - \$149	\$150 - \$199	\$200 - \$249	\$250 - \$299	\$300 - \$349	\$350 - \$399	\$400 +	NA	TOTAL
Bundle landline, phone and mobile	1.04% 4	5.21% 20	8.59% 33	11.98% 46	11.46% 44	10.16% 39	10.68% 41	7.55% 29	26.82% 103	6.51% 25	384
Bundle internet and phone	1.76% 4	16.30% 37	24.67% 56	11.89% 27	7.49% 17	6.17% 14	6.61% 15	3.08% 7	15.86% 36	6.17% 14	227
Internet only	15.34% 54	50.00% 176	17.05% 60	7.95% 28	2.84% 10	1.14% 4	1.14% 4	0.57% 2	2.56% 9	1.42% 5	352
Mobile Phone only	14.29% 44	28.90% 89	21.75% 67	8.77% 27	8.77% 27	4.22% 13	1.62% 5	1.95% 6	7.47% 23	2.27% 7	308

Landline only	19.42%	38.35%	20.39%	5.83%	2.91%	1.94%	1.94%	0.97%	3.40%	4.85%	
	40	79	42	12	6	4	4	2	7	10	206

Q6 How often do you use your landline service?

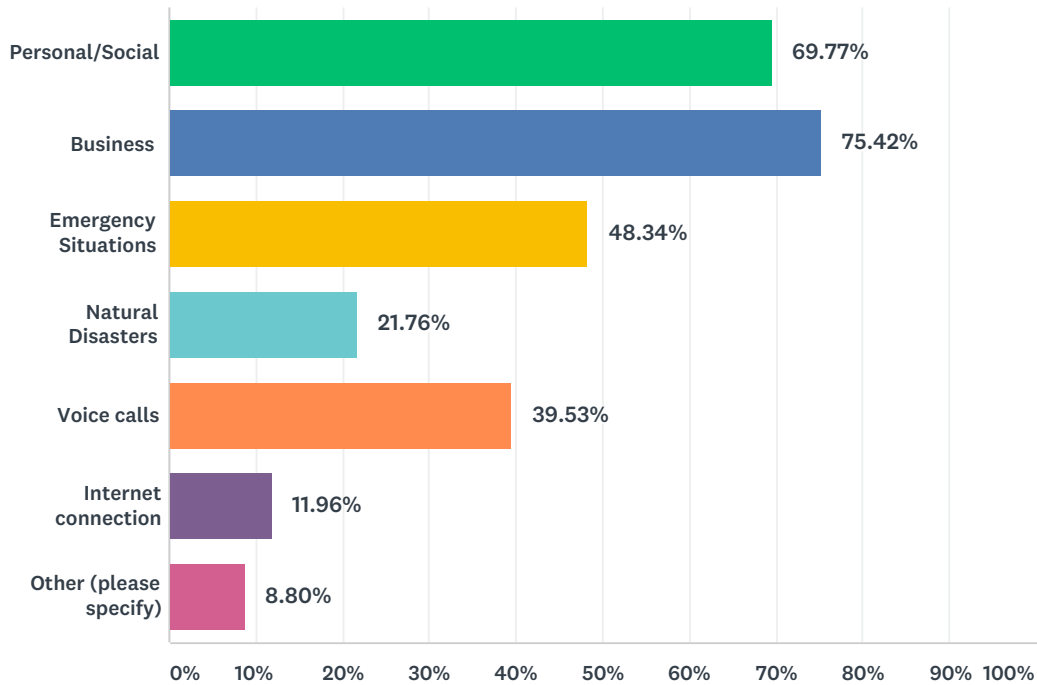
Answered: 704 Skipped: 50



ANSWER CHOICES	RESPONSES	
Daily	54.83%	386
Weekly	11.51%	81
Monthly	0.99%	7
Rarely	11.79%	83
Only when mobile coverage is down	4.40%	31
I don't have one	13.49%	95
Other (please specify)	2.98%	21
TOTAL		704

Q7 What do you use your landline for?

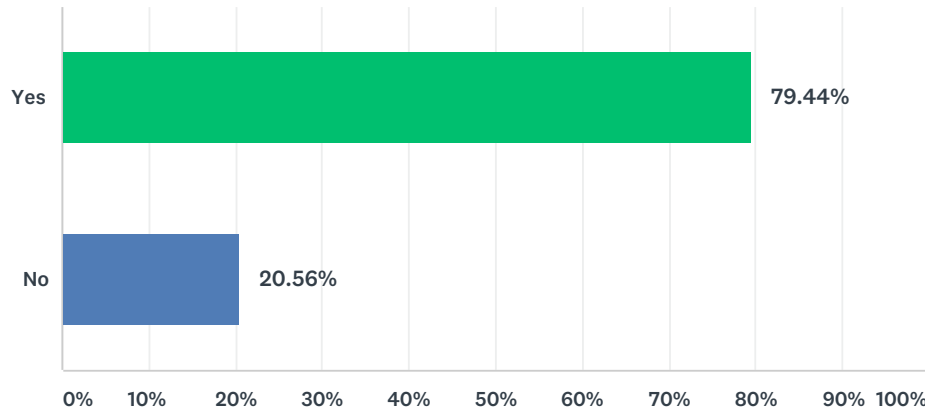
Answered: 602 Skipped: 152



ANSWER CHOICES	RESPONSES	
Personal/Social	69.77%	420
Business	75.42%	454
Emergency Situations	48.34%	291
Natural Disasters	21.76%	131
Voice calls	39.53%	238
Internet connection	11.96%	72
Other (please specify)	8.80%	53
Total Respondents: 602		

Q8 Do you rely on your landline service even with a mobile phone and/or internet connection?

Answered: 603 Skipped: 151



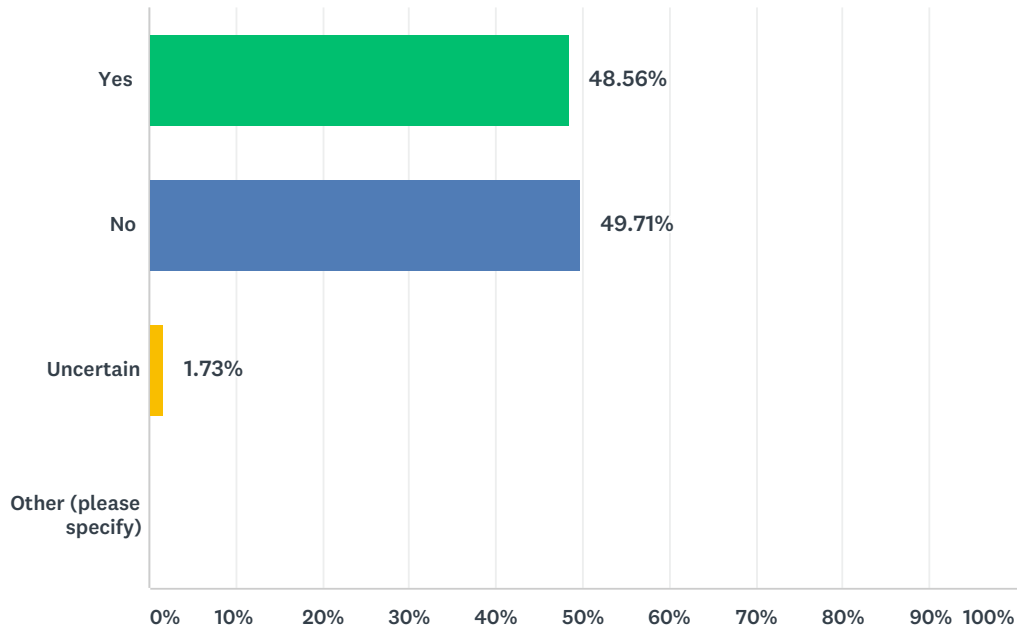
ANSWER CHOICES	RESPONSES	
Yes	79.44%	479
No	20.56%	124
TOTAL		603

Q9 If an alternate technology (voice over internet, satellite sleeve, wifi calling, etc) to the copper landline was proposed, what would you, your family and business require of it?

Answered: 527 Skipped: 227

Q10 Are you connected to the nbn?

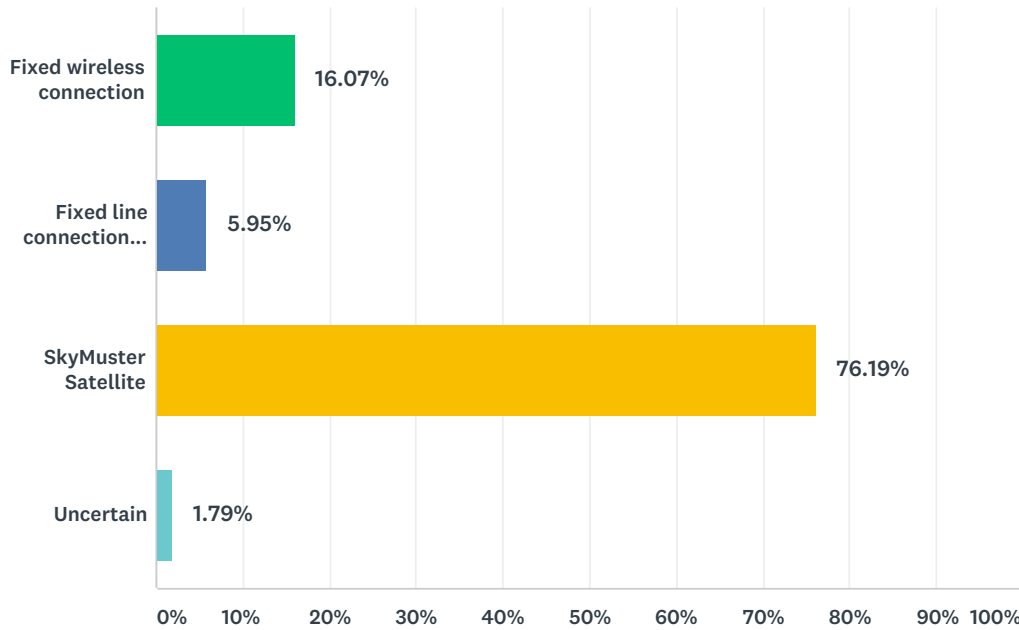
Answered: 694 Skipped: 60



ANSWER CHOICES	RESPONSES	
Yes	48.56%	337
No	49.71%	345
Uncertain	1.73%	12
Other (please specify)	0.00%	0
TOTAL		694

Q11 What type of nbn connection do you have?

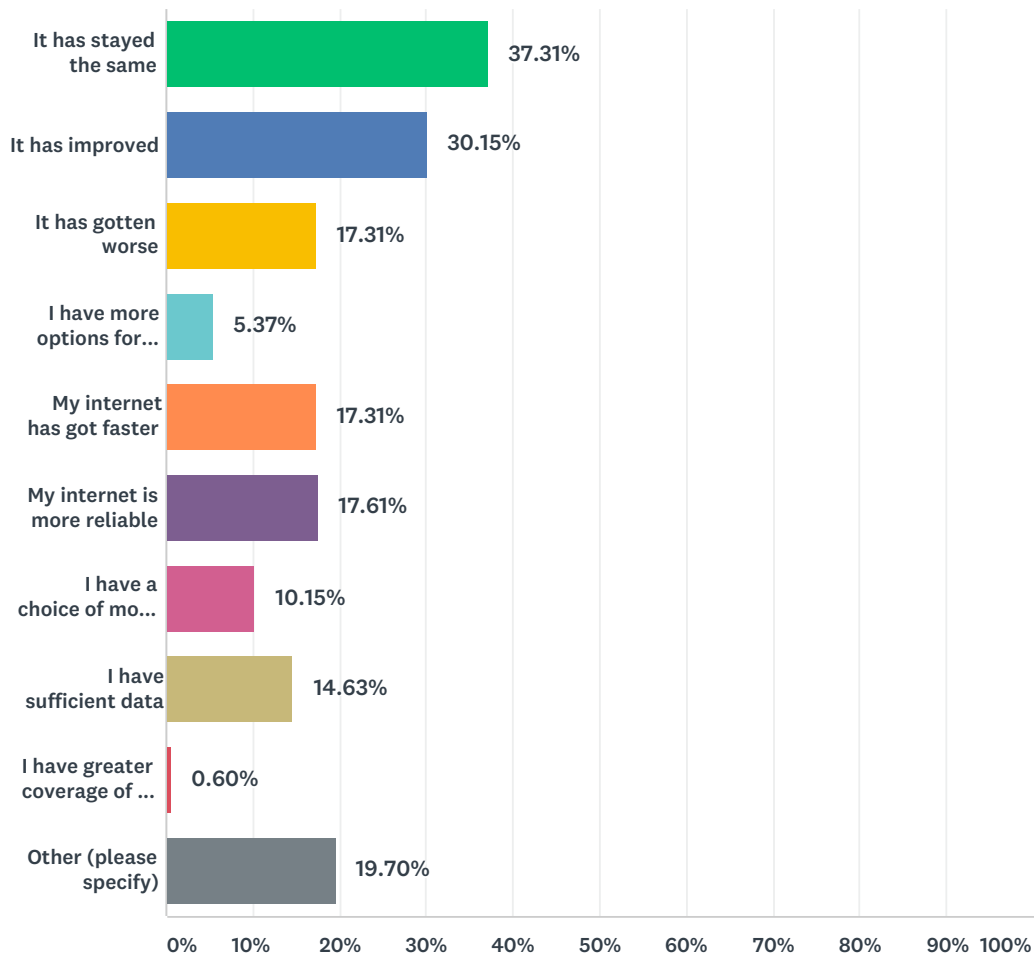
Answered: 336 Skipped: 418



ANSWER CHOICES	RESPONSES	
Fixed wireless connection	16.07%	54
Fixed line connection (physical line runs to premises)	5.95%	20
SkyMuster Satellite	76.19%	256
Uncertain	1.79%	6
TOTAL		336

Q12 How has the quality of your nbn service changed over the last three years? Please select all that apply.

Answered: 335 Skipped: 419

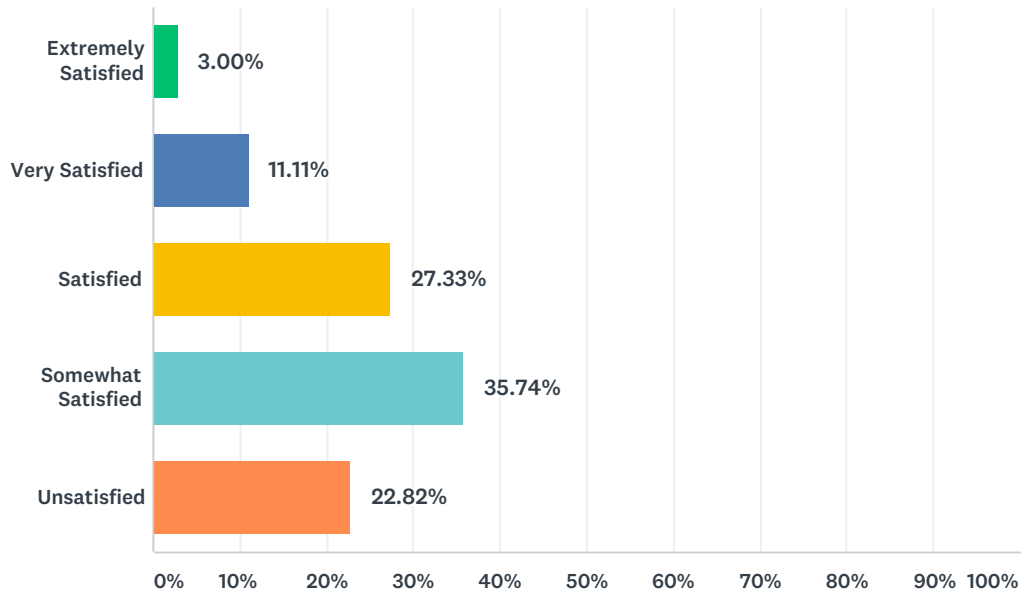


ANSWER CHOICES	RESPONSES	
It has stayed the same	37.31%	125
It has improved	30.15%	101
It has gotten worse	17.31%	58
I have more options for connection	5.37%	18
My internet has got faster	17.31%	58
My internet is more reliable	17.61%	59
I have a choice of more providers	10.15%	34
I have sufficient data	14.63%	49
I have greater coverage of my farm	0.60%	2
Other (please specify)	19.70%	66

Total Respondents: 335

Q13 Please describe how you feel about your nbn service

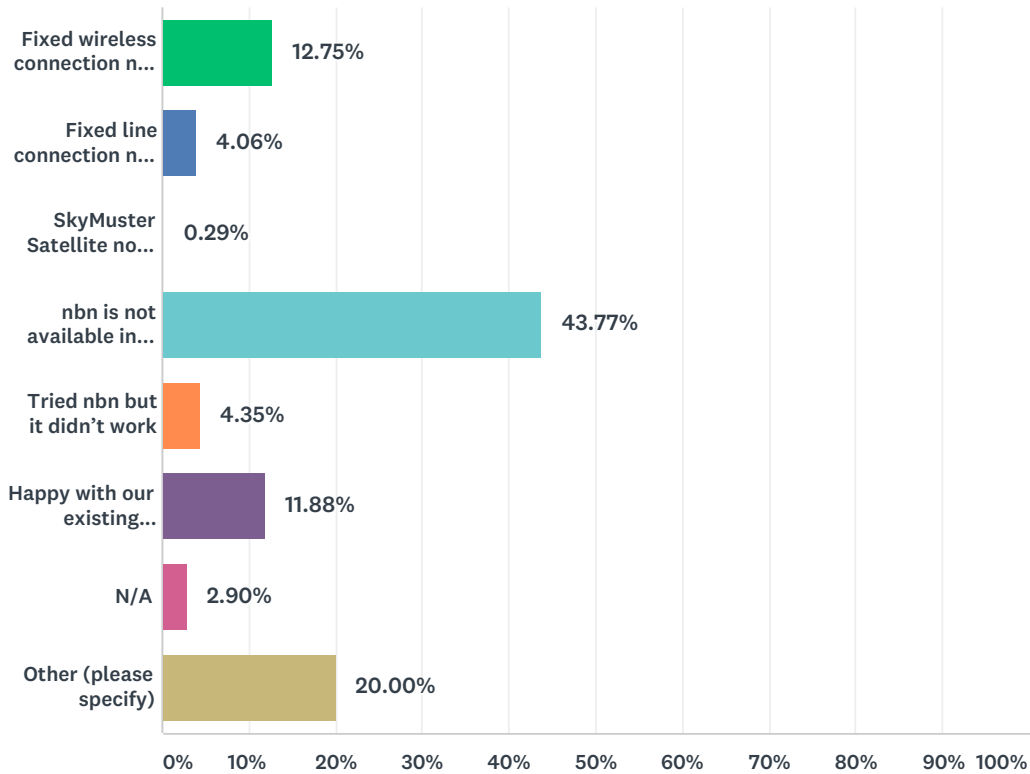
Answered: 333 Skipped: 421



ANSWER CHOICES	RESPONSES	
Extremely Satisfied	3.00%	10
Very Satisfied	11.11%	37
Satisfied	27.33%	91
Somewhat Satisfied	35.74%	119
Unsatisfied	22.82%	76
TOTAL		333

Q14 Why are you not connected to the nbn?

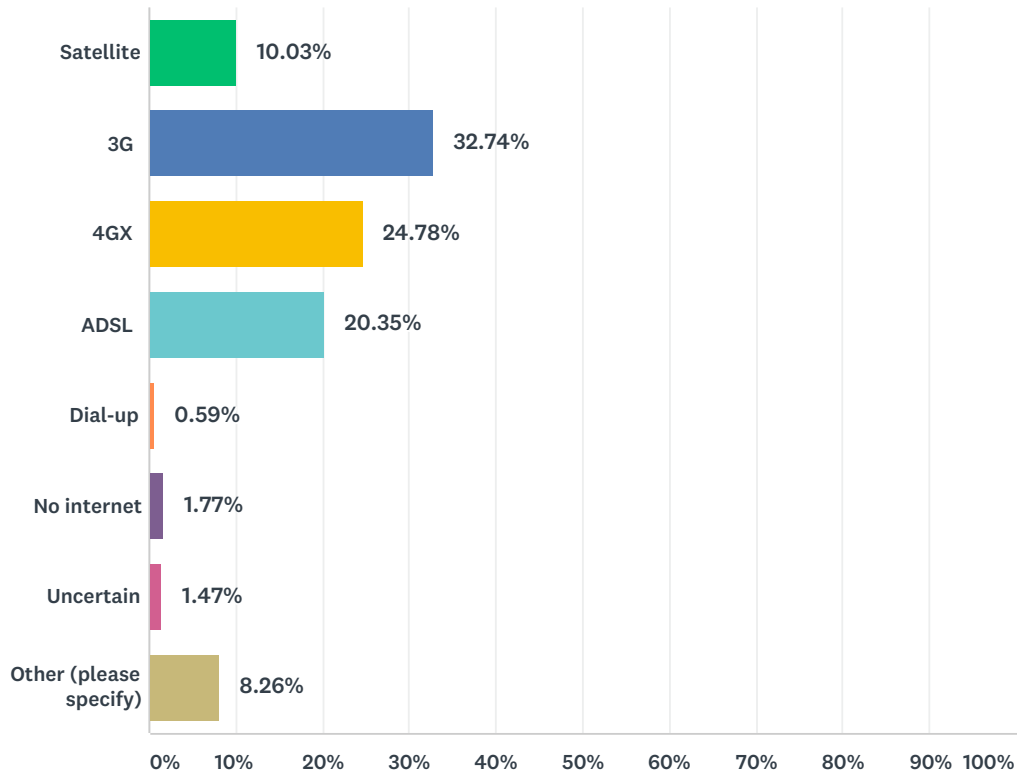
Answered: 345 Skipped: 409



ANSWER CHOICES	RESPONSES	
Fixed wireless connection not available	12.75%	44
Fixed line connection not available	4.06%	14
SkyMuster Satellite not available	0.29%	1
nbn is not available in our area	43.77%	151
Tried nbn but it didn't work	4.35%	15
Happy with our existing connection	11.88%	41
N/A	2.90%	10
Other (please specify)	20.00%	69
TOTAL		345

Q15 If you do not have the nbn how are you connected to the internet?

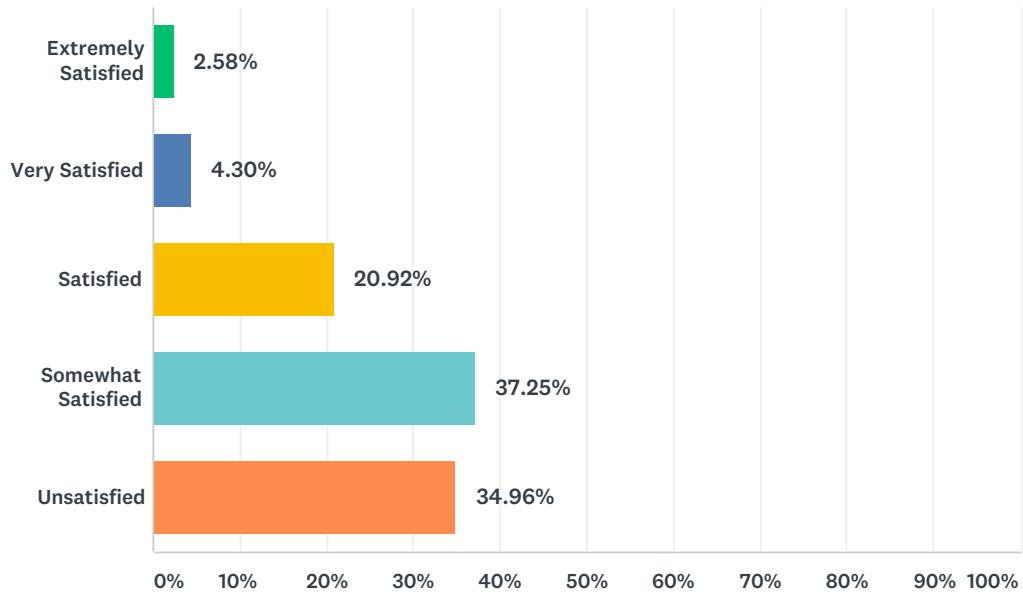
Answered: 339 Skipped: 415



ANSWER CHOICES	RESPONSES	
Satellite	10.03%	34
3G	32.74%	111
4GX	24.78%	84
ADSL	20.35%	69
Dial-up	0.59%	2
No internet	1.77%	6
Uncertain	1.47%	5
Other (please specify)	8.26%	28
TOTAL		339

Q16 Please describe how you feel about your internet service

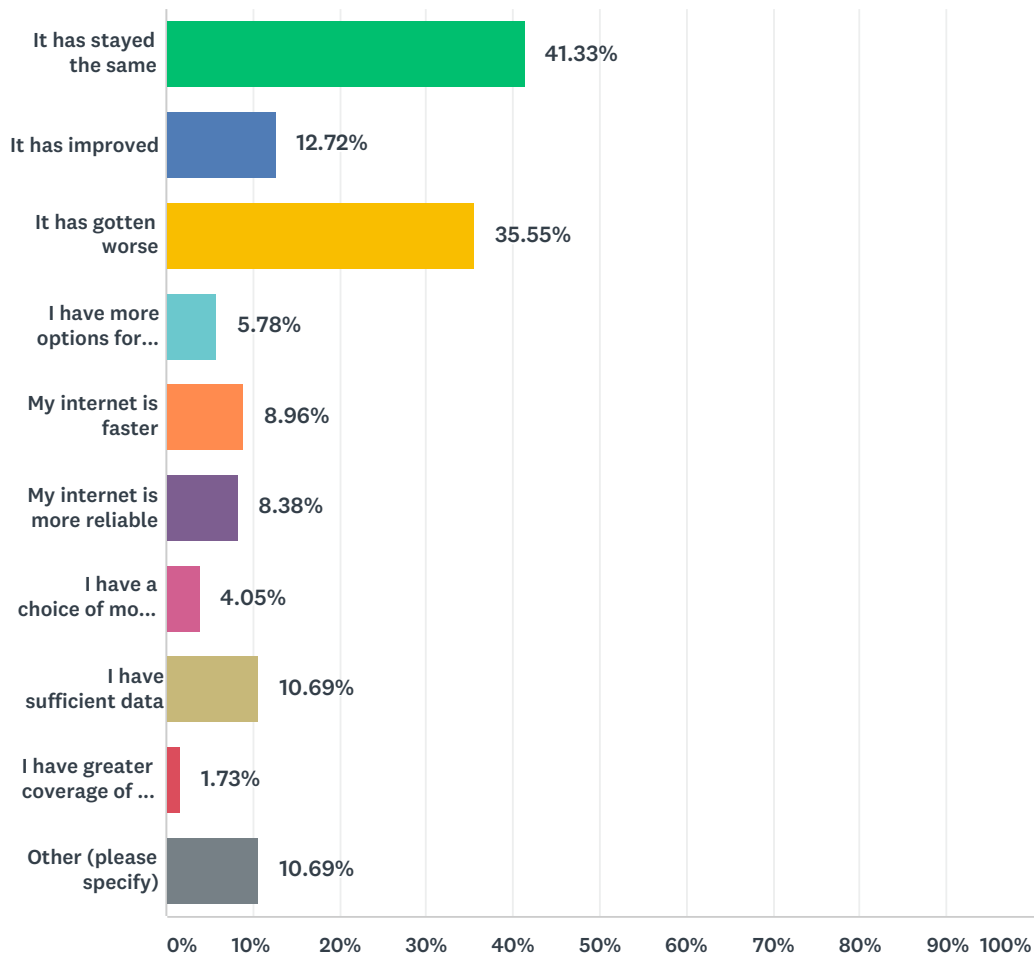
Answered: 349 Skipped: 405



ANSWER CHOICES	RESPONSES	
Extremely Satisfied	2.58%	9
Very Satisfied	4.30%	15
Satisfied	20.92%	73
Somewhat Satisfied	37.25%	130
Unsatisfied	34.96%	122
TOTAL		349

Q17 How has the quality of your internet service changed over the last three years? Please select all that apply.

Answered: 346 Skipped: 408

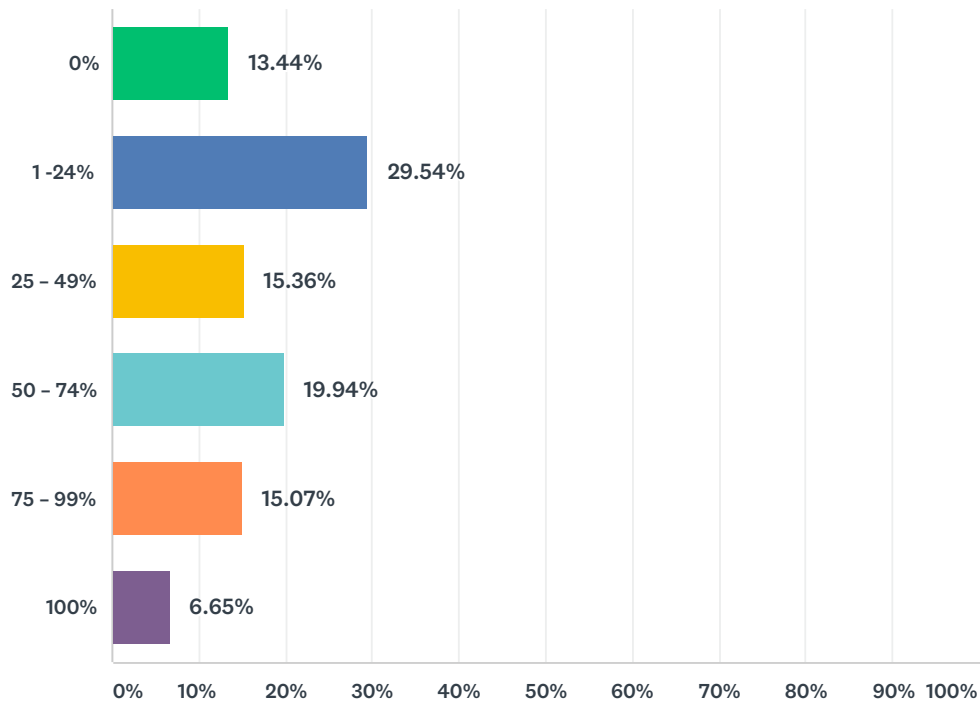


ANSWER CHOICES	RESPONSES	
It has stayed the same	41.33%	143
It has improved	12.72%	44
It has gotten worse	35.55%	123
I have more options for connection	5.78%	20
My internet is faster	8.96%	31
My internet is more reliable	8.38%	29
I have a choice of more providers	4.05%	14
I have sufficient data	10.69%	37
I have greater coverage of my farm	1.73%	6
Other (please specify)	10.69%	37

Total Respondents: 346

Q18 Thinking about your mobile phone voice coverage, what percentage of your property has constant or reliable phone service?

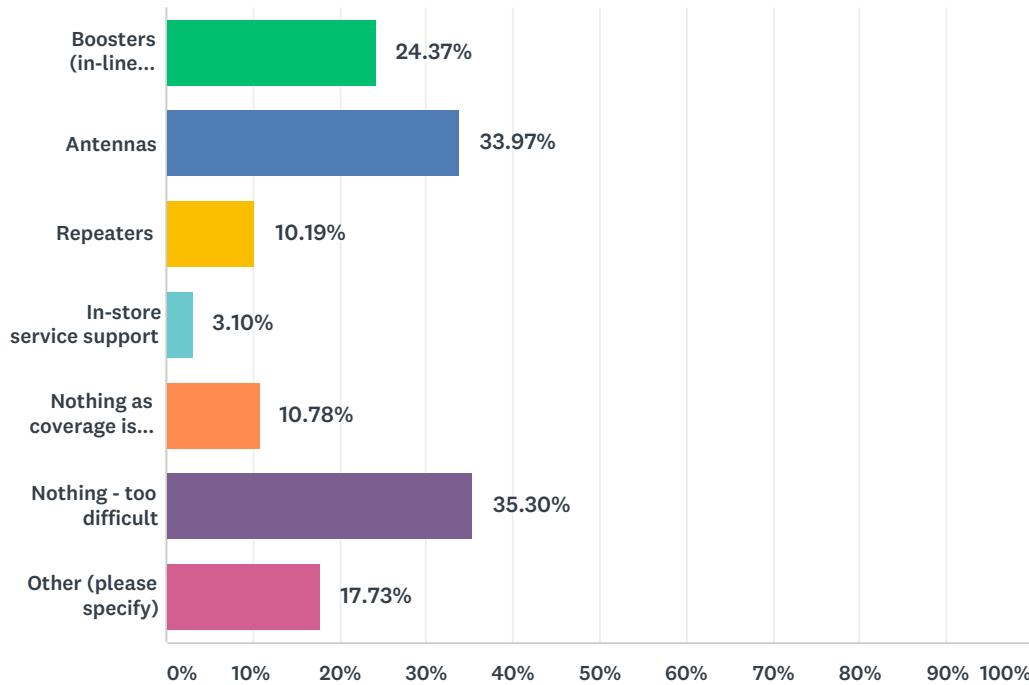
Answered: 677 Skipped: 77



ANSWER CHOICES	RESPONSES	
0%	13.44%	91
1 -24%	29.54%	200
25 - 49%	15.36%	104
50 - 74%	19.94%	135
75 - 99%	15.07%	102
100%	6.65%	45
TOTAL		677

Q19 What have you done to improve your mobile voice coverage?

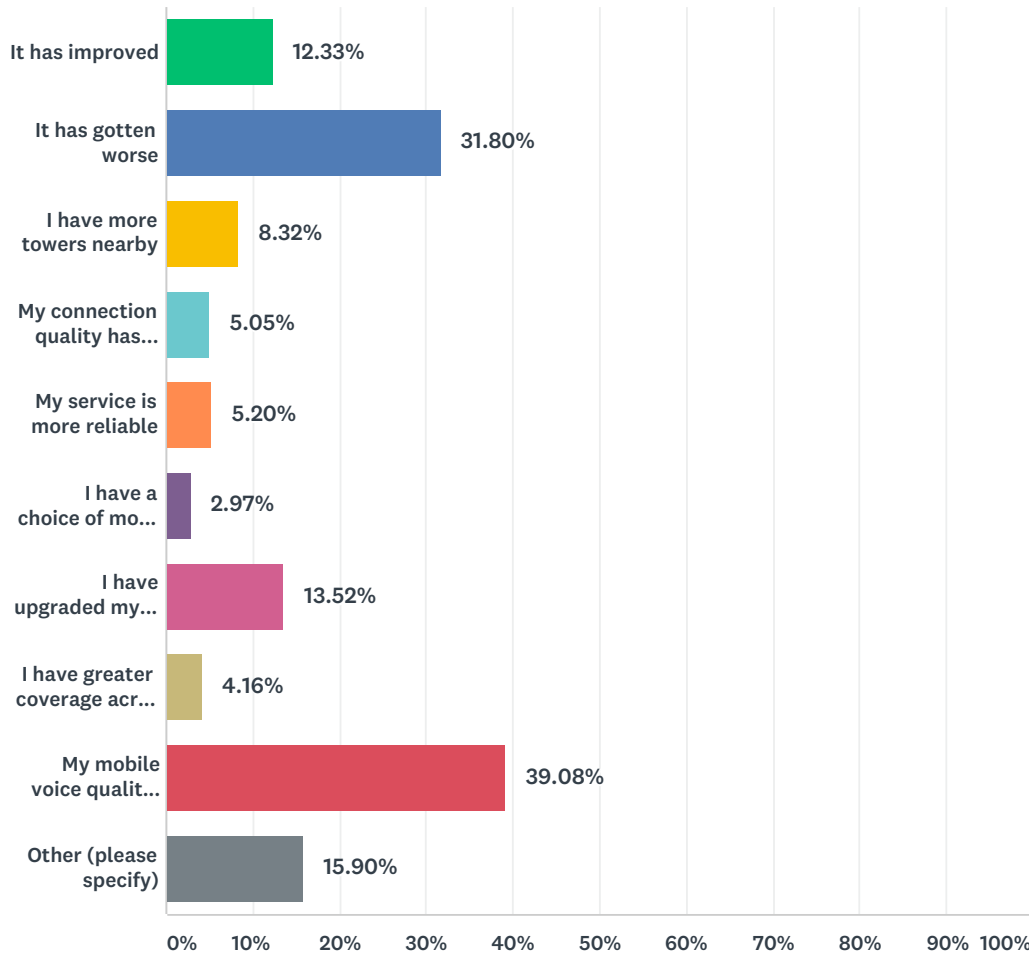
Answered: 677 Skipped: 77



ANSWER CHOICES	RESPONSES	
Boosters (in-line amplifiers)	24.37%	165
Antennas	33.97%	230
Repeaters	10.19%	69
In-store service support	3.10%	21
Nothing as coverage is good	10.78%	73
Nothing - too difficult	35.30%	239
Other (please specify)	17.73%	120
Total Respondents: 677		

Q20 How has the quality of your mobile voice service changed over the last three years? Please select all that apply.

Answered: 673 Skipped: 81

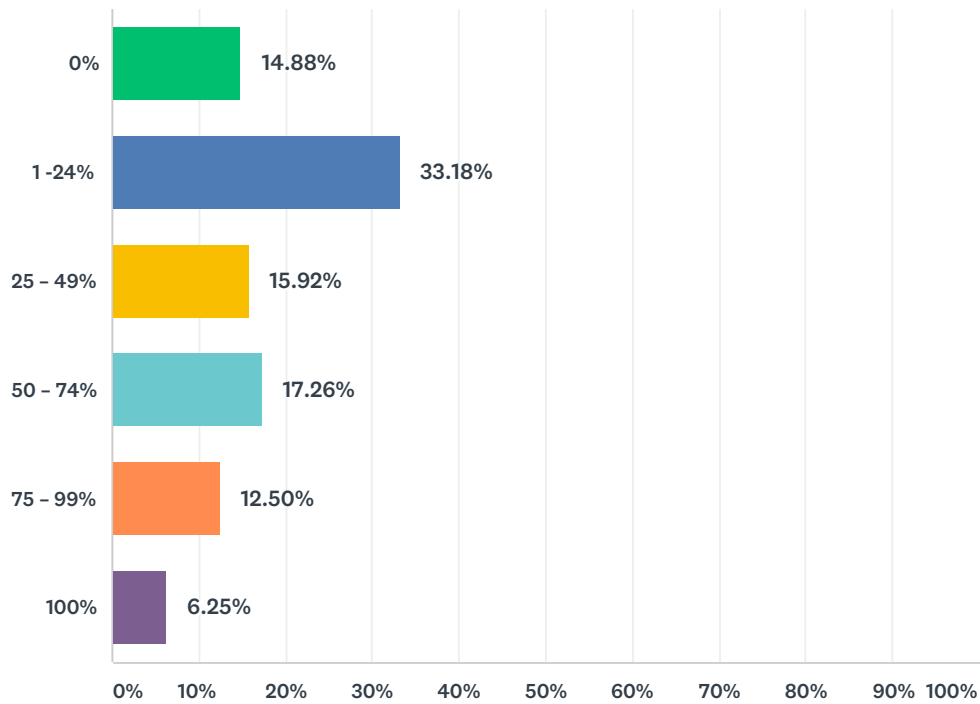


ANSWER CHOICES	RESPONSES	
It has improved	12.33%	83
It has gotten worse	31.80%	214
I have more towers nearby	8.32%	56
My connection quality has improved	5.05%	34
My service is more reliable	5.20%	35
I have a choice of more providers	2.97%	20
I have upgraded my phone	13.52%	91
I have greater coverage across my property	4.16%	28
My mobile voice quality has not changed	39.08%	263
Other (please specify)	15.90%	107

Total Respondents: 673

Q21 Thinking about your mobile phone internet coverage, what percentage of your property has constant or reliable internet connection?

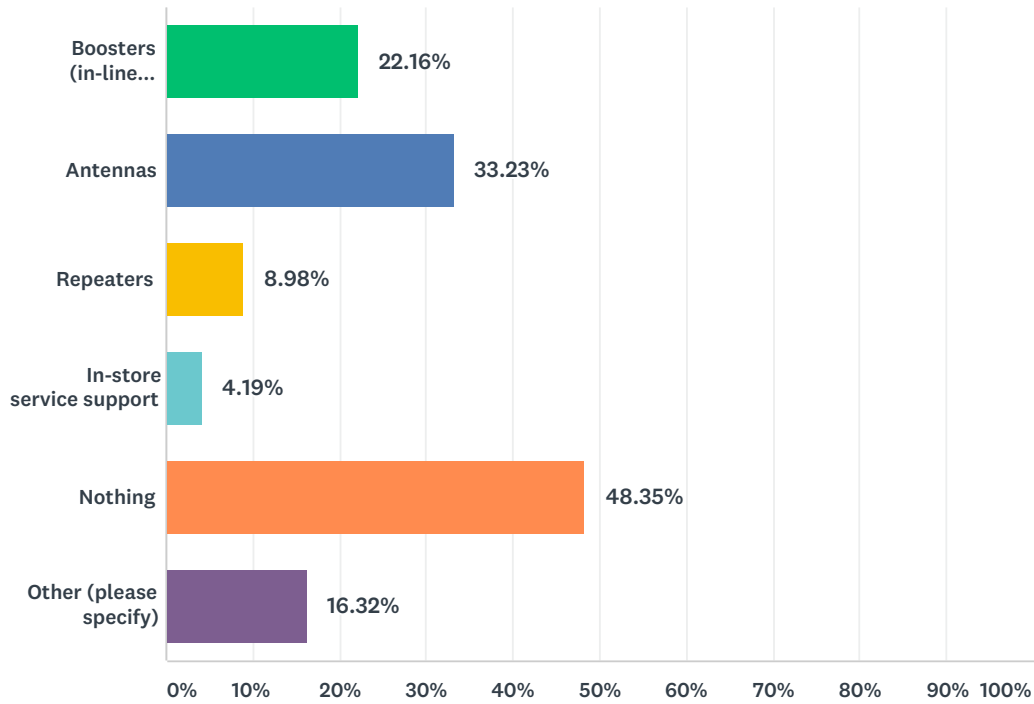
Answered: 672 Skipped: 82



ANSWER CHOICES	RESPONSES	
0%	14.88%	100
1 -24%	33.18%	223
25 - 49%	15.92%	107
50 - 74%	17.26%	116
75 - 99%	12.50%	84
100%	6.25%	42
TOTAL		672

Q22 What have you done to improve your mobile data coverage?

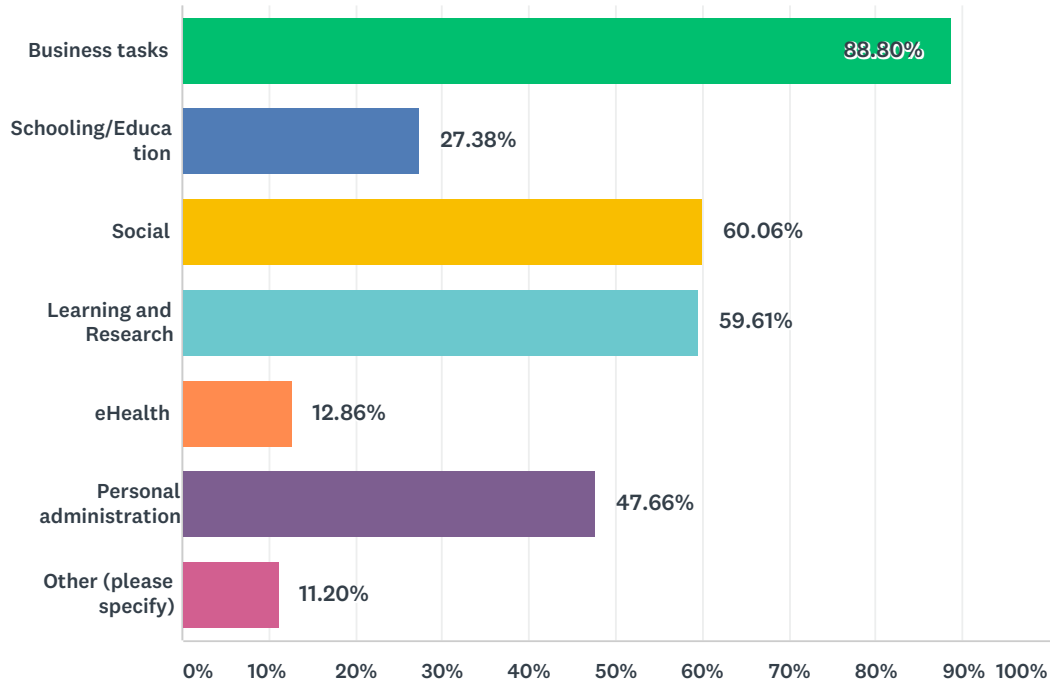
Answered: 668 Skipped: 86



ANSWER CHOICES	RESPONSES	
Boosters (in-line amplifiers)	22.16%	148
Antennas	33.23%	222
Repeaters	8.98%	60
In-store service support	4.19%	28
Nothing	48.35%	323
Other (please specify)	16.32%	109
Total Respondents: 668		

Q23 What do you use your mobile data for?

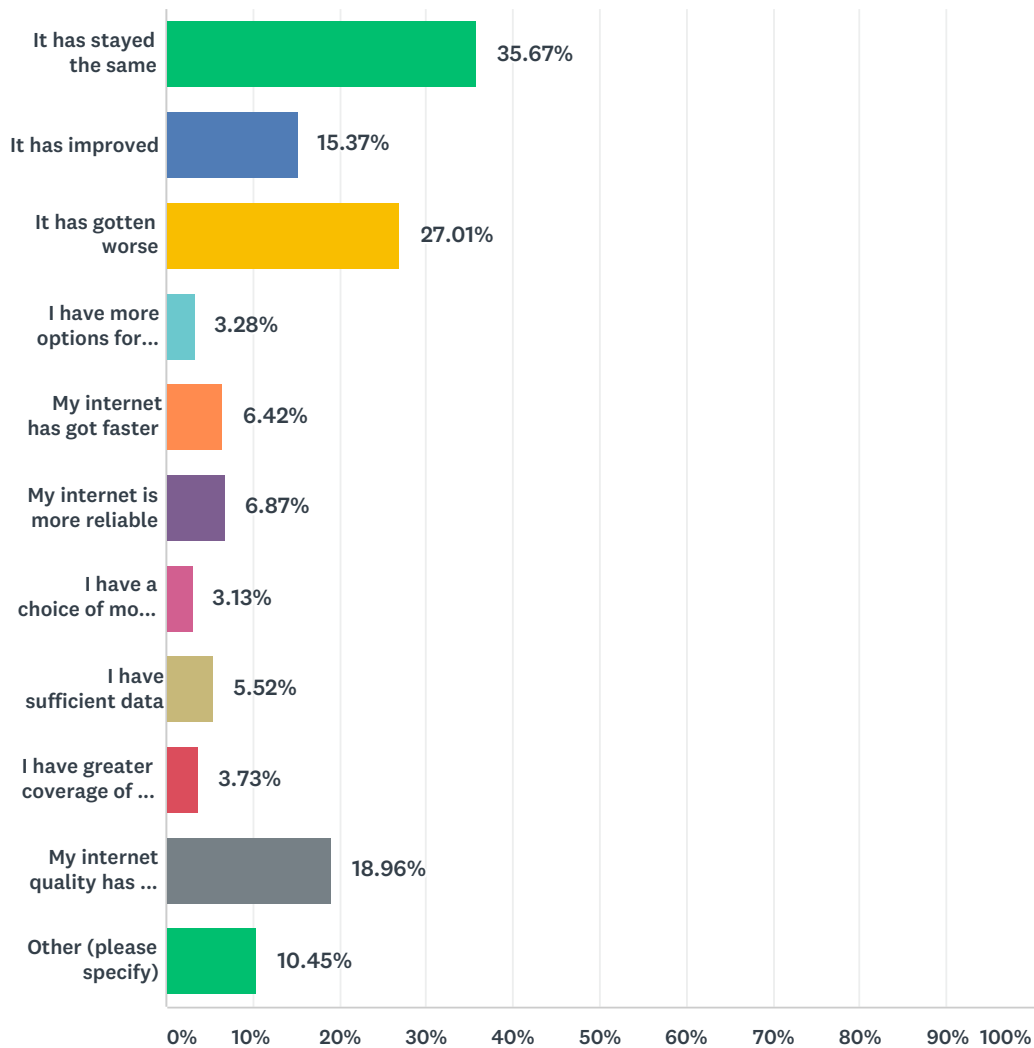
Answered: 661 Skipped: 93



ANSWER CHOICES	RESPONSES	
Business tasks	88.80%	587
Schooling/Education	27.38%	181
Social	60.06%	397
Learning and Research	59.61%	394
eHealth	12.86%	85
Personal administration	47.66%	315
Other (please specify)	11.20%	74
Total Respondents: 661		

Q24 How has the quality of your mobile data service changed over the last three years? Please select all that apply.

Answered: 670 Skipped: 84

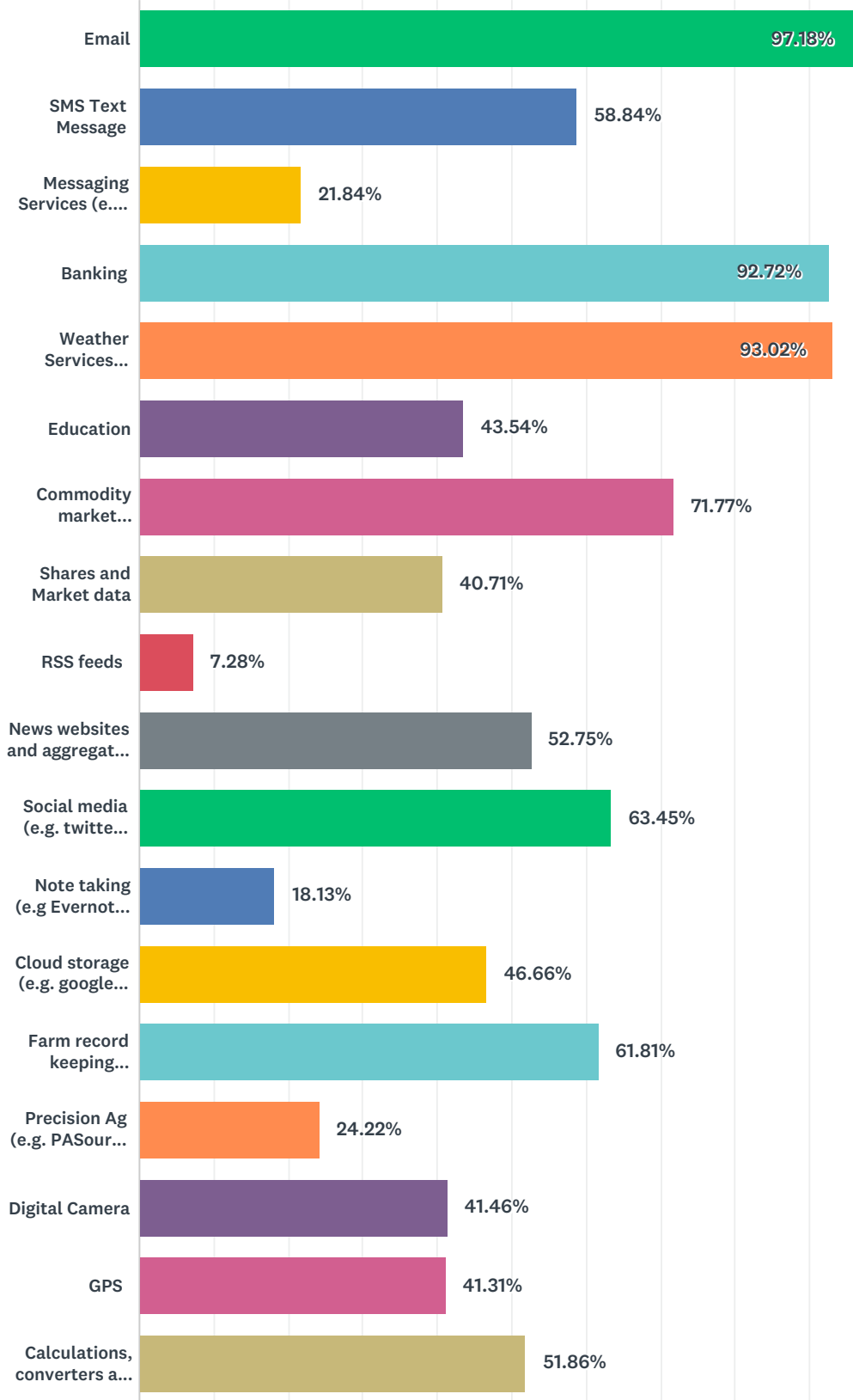


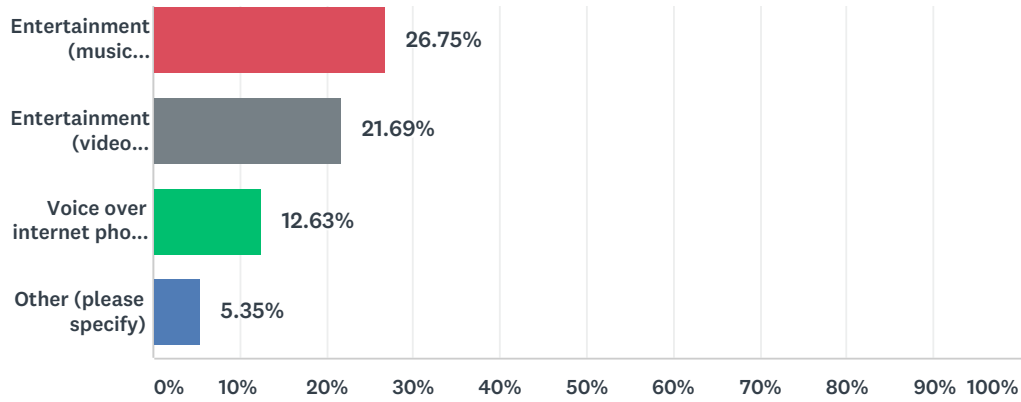
ANSWER CHOICES	RESPONSES	
It has stayed the same	35.67%	239
It has improved	15.37%	103
It has gotten worse	27.01%	181
I have more options for connection	3.28%	22
My internet has got faster	6.42%	43
My internet is more reliable	6.87%	46
I have a choice of more providers	3.13%	21
I have sufficient data	5.52%	37
I have greater coverage of my property	3.73%	25

My internet quality has not changed	18.96%	127
Other (please specify)	10.45%	70
Total Respondents: 670		

Q25 Which of the following activities are you undertaking on a regular basis (weekly) using your internet? Select multiple if necessary

Answered: 673 Skipped: 81

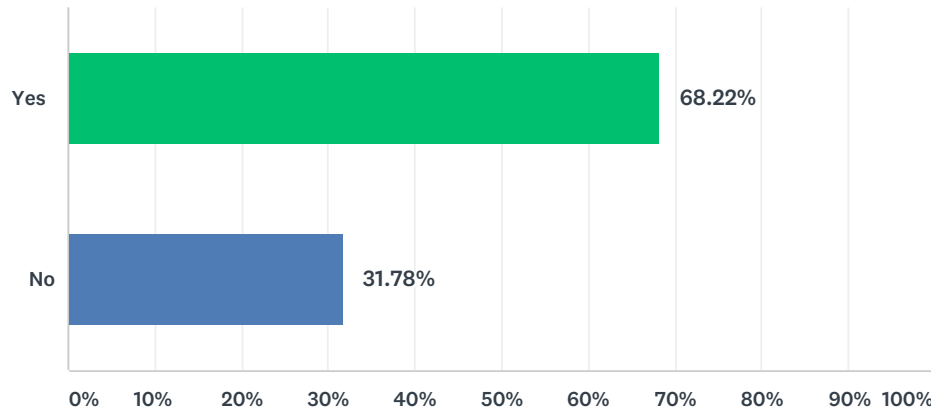




ANSWER CHOICES	RESPONSES	
Email	97.18%	654
SMS Text Message	58.84%	396
Messaging Services (e.g. Skype, Viber)	21.84%	147
Banking	92.72%	624
Weather Services (e.g WeatherZone, SprayWise)	93.02%	626
Education	43.54%	293
Commodity market reports/trading platforms (e.g. Auctions Plus, Clear Grain exchange)	71.77%	483
Shares and Market data	40.71%	274
RSS feeds	7.28%	49
News websites and aggregators	52.75%	355
Social media (e.g. twitter, Facebook etc)	63.45%	427
Note taking (e.g Evernote, OneNote, Keep)	18.13%	122
Cloud storage (e.g. google drive, iCloud, Dropbox etc)	46.66%	314
Farm record keeping software	61.81%	416
Precision Ag (e.g. PASource, GeoSys)	24.22%	163
Digital Camera	41.46%	279
GPS	41.31%	278
Calculations, converters and calendar	51.86%	349
Entertainment (music streaming)	26.75%	180
Entertainment (video streaming)	21.69%	146
Voice over internet phone calls	12.63%	85
Other (please specify)	5.35%	36
Total Respondents: 673		

Q26 Are there any barriers to taking up new digital technology?

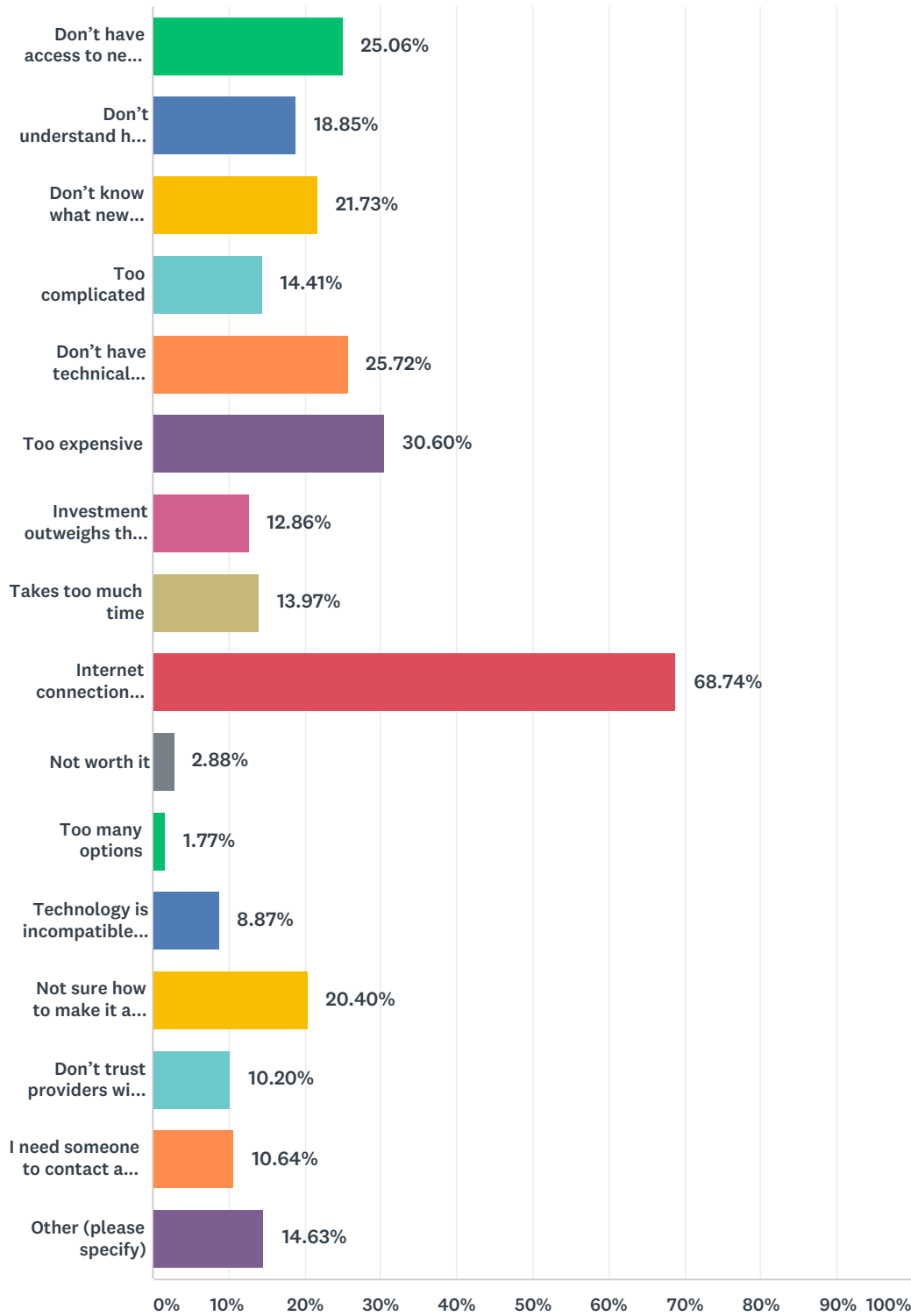
Answered: 667 Skipped: 87



ANSWER CHOICES	RESPONSES	
Yes	68.22%	455
No	31.78%	212
TOTAL		667

Q27 If yes what is holding you back? Note: Select multiple if necessary.

Answered: 451 Skipped: 303

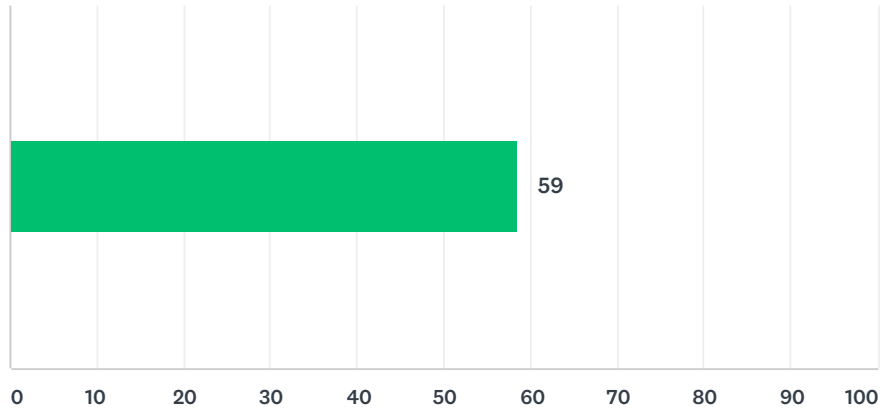


ANSWER CHOICES	RESPONSES
Don't have access to new technology	25.06% 113

Don't understand how to use the technology	18.85%	85
Don't know what new technology is available	21.73%	98
Too complicated	14.41%	65
Don't have technical support	25.72%	116
Too expensive	30.60%	138
Investment outweighs the benefits	12.86%	58
Takes too much time	13.97%	63
Internet connection isn't strong enough	68.74%	310
Not worth it	2.88%	13
Too many options	1.77%	8
Technology is incompatible with other products I have	8.87%	40
Not sure how to make it all work together	20.40%	92
Don't trust providers with my data	10.20%	46
I need someone to contact as a starting point	10.64%	48
Other (please specify)	14.63%	66
Total Respondents: 451		

Q28 How digitally literate do you consider yourself?

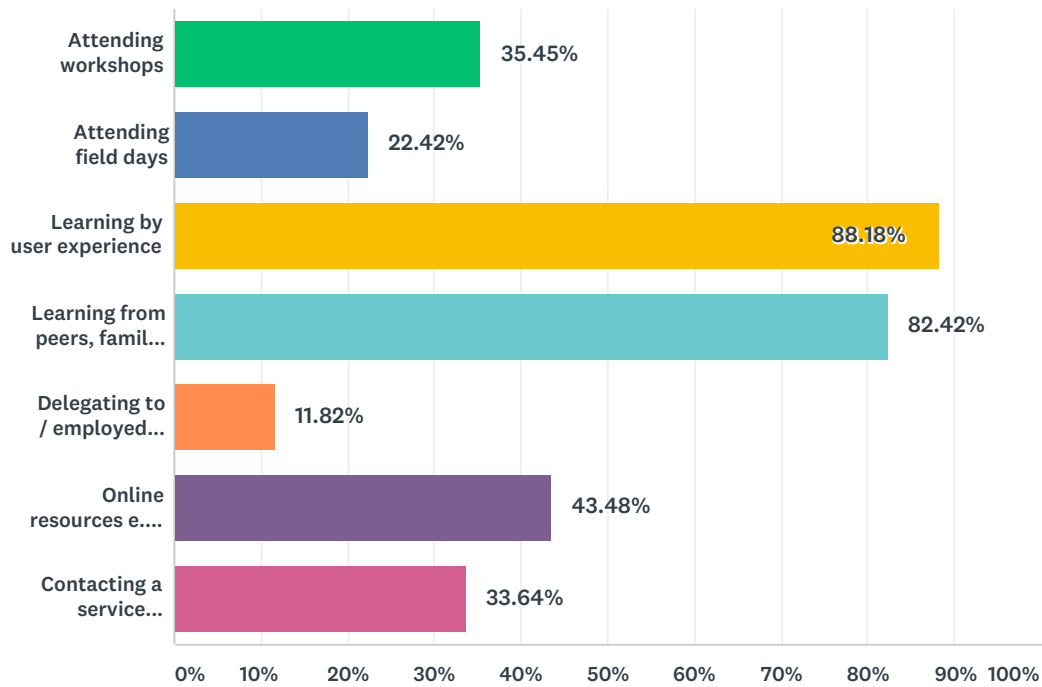
Answered: 662 Skipped: 92



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	59	38,789	662
Total Respondents: 662			

Q29 How have you gone about building your knowledge and skills in digital technology?

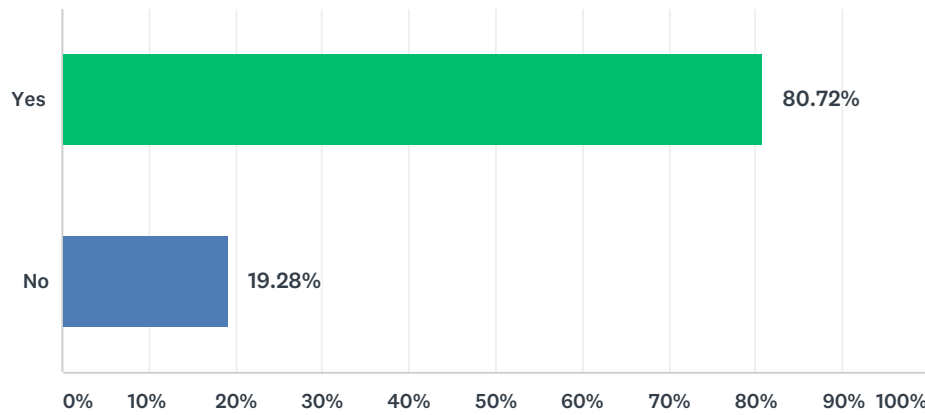
Answered: 660 Skipped: 94



ANSWER CHOICES	RESPONSES	
Attending workshops	35.45%	234
Attending field days	22.42%	148
Learning by user experience	88.18%	582
Learning from peers, family and friends.	82.42%	544
Delegating to / employed staff who are across the technology	11.82%	78
Online resources e.g. blogs, videos and tutorials	43.48%	287
Contacting a service provider	33.64%	222
Total Respondents: 660		

Q30 Have you experienced ongoing issues with your landline, mobile or internet service in the last twelve months?

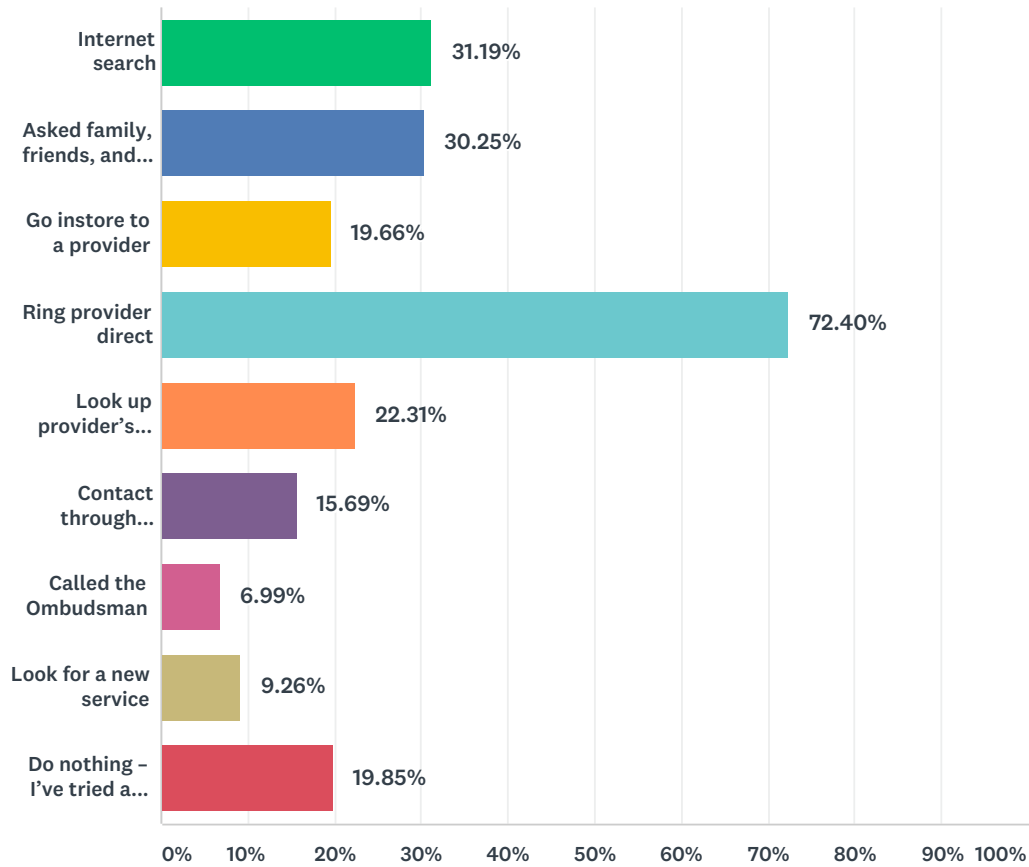
Answered: 664 Skipped: 90



ANSWER CHOICES	RESPONSES	
Yes	80.72%	536
No	19.28%	128
TOTAL		664

Q31 How do you typically seek to resolve the issue?

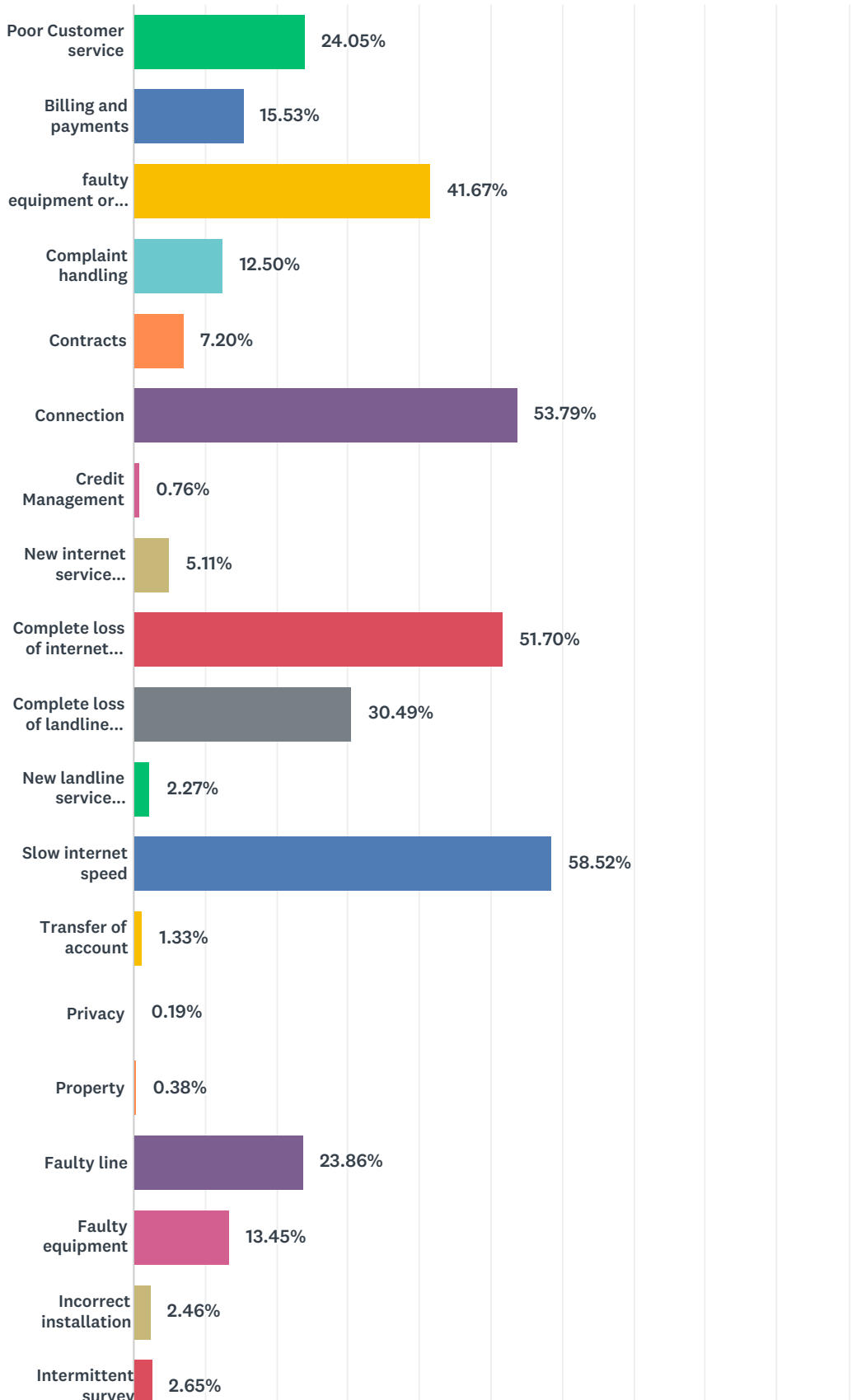
Answered: 529 Skipped: 225

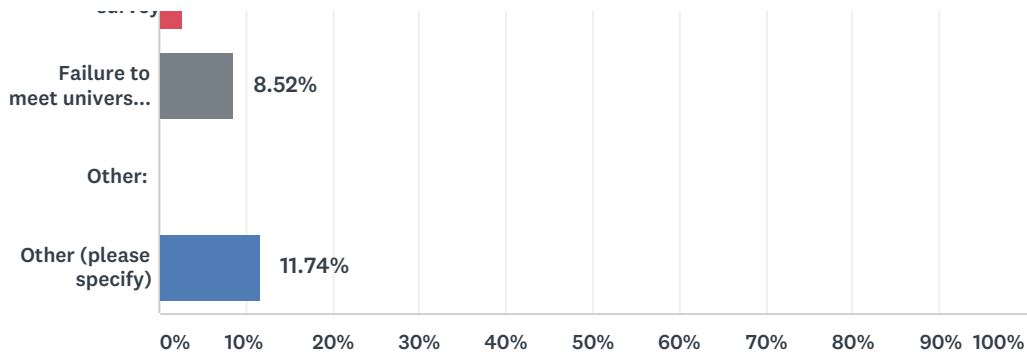


ANSWER CHOICES	RESPONSES	
Internet search	31.19%	165
Asked family, friends, and colleagues	30.25%	160
Go instore to a provider	19.66%	104
Ring provider direct	72.40%	383
Look up provider's website	22.31%	118
Contact through provider's chat function online	15.69%	83
Called the Ombudsman	6.99%	37
Look for a new service	9.26%	49
Do nothing – I've tried and it's too hard	19.85%	105
Total Respondents: 529		

Q32 What was the issue?

Answered: 528 Skipped: 226

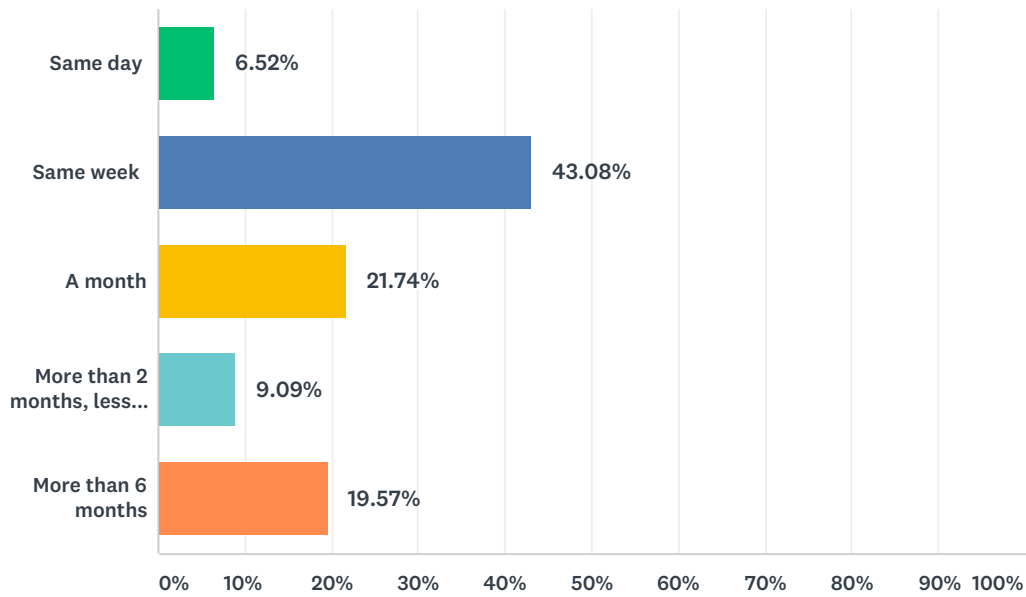




ANSWER CHOICES	RESPONSES	
Poor Customer service	24.05%	127
Billing and payments	15.53%	82
faulty equipment or line	41.67%	220
Complaint handling	12.50%	66
Contracts	7.20%	38
Connection	53.79%	284
Credit Management	0.76%	4
New internet service connection delay	5.11%	27
Complete loss of internet service	51.70%	273
Complete loss of landline service	30.49%	161
New landline service connection delay	2.27%	12
Slow internet speed	58.52%	309
Transfer of account	1.33%	7
Privacy	0.19%	1
Property	0.38%	2
Faulty line	23.86%	126
Faulty equipment	13.45%	71
Incorrect installation	2.46%	13
Intermittent survey	2.65%	14
Failure to meet universal service obligations	8.52%	45
Other:	0.00%	0
Other (please specify)	11.74%	62
Total Respondents: 528		

Q33 If you experienced issues with your mobile, internet or landline, what was the timeframe for it being resolved?

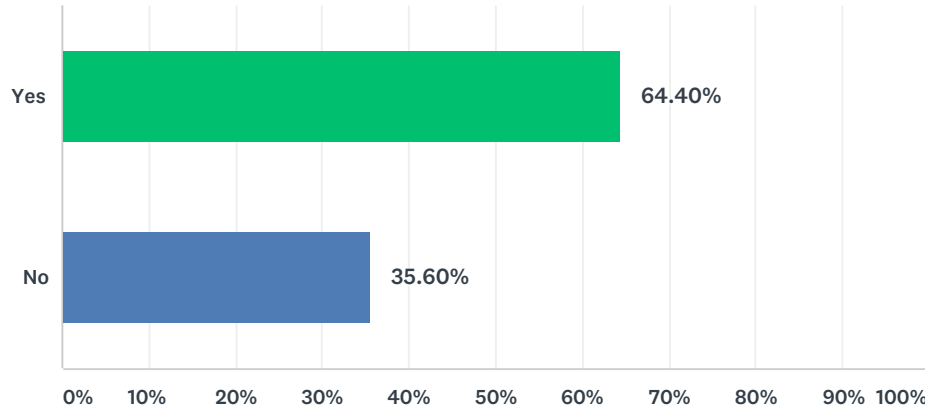
Answered: 506 Skipped: 248



ANSWER CHOICES	RESPONSES	
Same day	6.52%	33
Same week	43.08%	218
A month	21.74%	110
More than 2 months, less than 6 months	9.09%	46
More than 6 months	19.57%	99
TOTAL		506

Q34 Was it resolved?

Answered: 514 Skipped: 240



ANSWER CHOICES	RESPONSES	
Yes	64.40%	331
No	35.60%	183
TOTAL		514

Q35 How was your issue resolved, or why wasn't your issue resolved?

Answered: 438 Skipped: 316

Q36 What emerging digital services will be of the most benefit to your business?

Answered: 496 Skipped: 258

Q37 Do you have any further comments or information you'd like to provide in relation to the need for, quality of and access to regional telecommunications?

Answered: 446 Skipped: 308