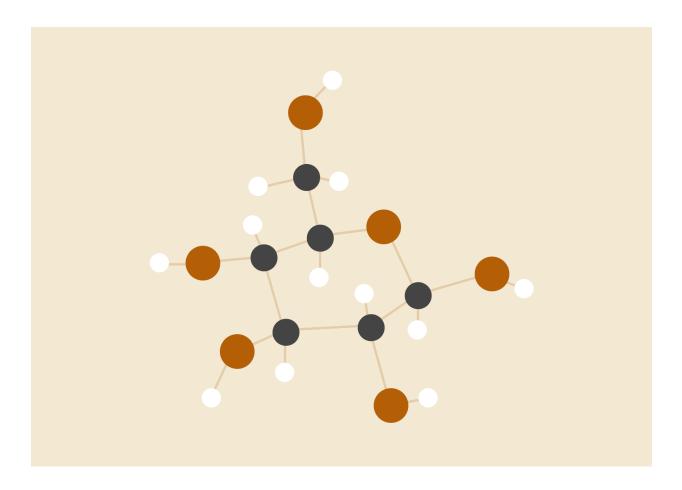
# Analysis of the Debian Developer Survey (2022)

Learning more about possible uses of money in the Debian community.



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# ABSTRACT/EXECUTIVE SUMMARY

This analysis is based on 224 completed surveys. More than half of all respondents are active in Debian on at least a weekly basis. More than 90% are involved in maintenance of packages, while more than 80% vote on General Resolutions. This indicates that contributors to Debian tend to be involved regularly in both technical and non-technical ways. While email and mailing lists are the most popular means of communication for project-related matters and connections between Debian acquaintances and while nearly all respondents indicated that they use email for Debian-related communication, fewer than half of respondents indicated that they actively participate in mailing list discussions. This indicates that Debian contributors tend to be engaged more in "doing" than they are engaged in discussions of project-wide matters.

Without a doubt, the volunteer ethos continues to be at the heart of what defines the Debian project. Nearly half of all respondents are active in Debian in a purely personal capacity, which is to say that they volunteer and are not compensated for their contributions to Debian. Another nearly half of respondents are active in a mix of personal and professional capacities, indicating that some of their contributions are purely volunteer while others of their contributions are monetarily compensated in some way. This suggests that non-volunteer or professional motivations play a part in the contributions of at least half of respondents.

The team with the lowest view of the sustainability of their current level of Debian participation was the QA team, with only half indicating that the current level was sustainable. Nevertheless, there were relatively few respondents overall who viewed their current level of Debian participation as unsustainable, most of whom also indicated that it would become sustainable if some of their Debian work were paid. This would suggest that targeted funding may be able to produce an increase in the sustainability of Debian participation and that such efforts should make allowance for both funding of contributors who are already being funded in some way for some of their participation and also contributors who are not being compensated for any of their current Debian contributions. This could be viewed as funding to maintain the current level of Debian contribution, or possibly to prevent current contributors from reducing their participation.

As far as increasing Debian participation, 65% of respondents would like to spend more time contributing to Debian. More than 80% of those, 112 respondents, indicated an answer of "yes" or "maybe, but it would require important changes in my life" to the question "Could you increase your involvement if some work was paid?" Given that 50% of respondents indicated that they contributed in both personal and professional contexts and given the number who indicated that they definitely could or maybe could increase their participation if some of the work was paid, it seems logical to conclude that a substantial number of Debian contributors contribute to some degree in a self-employed capacity. This is positive as it means there is a high likelihood that targeted funding could produce meaningful increases in Debian participation.

In general, there already exist actionable ideas which survey respondents consider important to the Debian project and for which funding could presumably be applied in order to aid their implementation.

There seems to be broad support for paying people who are already involved as Debian contributors, but very little support for hiring contractors, that is to say, those who are not already Debian contributors in some way. Members of the Security Team were by far the most supportive towards the idea of paying Debian contributors.

Concerning specific ideas to fund there is clearly a range of support, with some ideas (like "Paying for development of new features/improvements for Debian-specific infrastructure," "Paying development of new features/improvements to Debian specific software," and "Pay Debian contributors to complete large scale changes in a reasonable time frame") having positive support exceeding 80%, to "Pay Application Managers to ensure we deal with new contributors in a timely fashion" with a level of positive support below 40%. In general, the most positively viewed ideas appear to be those with the highest degree of required technical effort, while the least positively viewed ideas can be seen to involve much less technical effort.

As far as funding particular roles, the Security Team and LTS Team were viewed the most favorably and the Technical Committee and DAM the least favorably. Of the responses to the "additional roles to fund" question, DSA was the most often mentioned.

Respondents were given an opportunity to voice individual concerns about the impact of funding on Debian (via a free-form text entry on the survey). As is to be expected when soliciting comments from as large and diverse a group as the population of Debian Developers, there were numerous reservations and concerns expressed. The two which were brought up most frequently had to do with ensuring that Debian project goals and

core volunteer ethos are not subverted by the participation of paid contributors. Any funding efforts should carefully consider these concerns and ensure that they are addressed appropriately.

In summary, there is broad consensus that funding would have a positive impact, that there are particular ideas/tasks that have a very high level of positive support for funding among the survey respondents, and that there are particular roles as well that have a similarly high level of positive support for being funded. Efforts to introduce funding to Debian should likely focus on those ideas and roles which have the highest level of positive support, and then possibly expand as the concept is proven and refined.

# THE SURVEY DEMOGRAPHICS

#### **POPULATION**

The Debian Developer Survey (2022) was sent out to the debian-devel-announce mailing list. While subscriber counts for Debian mailing lists are not publicly available, as of the 2023 DPL election there were 1023 voting-eligible Debian Developers.<sup>1</sup> Of the 1023 voting-eligible Debian Developers<sup>2</sup> 266 requested the tokenized link to fill out the survey, representing a 26% request rate. Of the 266 who requested survey links 224 completed the survey, representing a response rate of 84% (based on the requested links) or 22% (based on the entire eligible survey population). This entire report is based only on the 224 completed surveys.

# FREQUENCY OF CONTRIBUTIONS

The first question in the survey was, "What kind of contributor do you consider yourself?" The intent was to gauge the frequency of contributions to Debian for each survey respondent. The possible answers were:

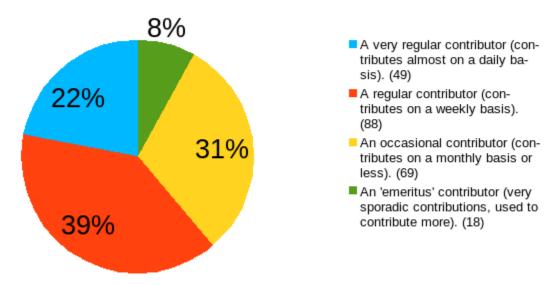
- A very regular contributor (contributes almost on a daily basis).
- A regular contributor (contributes on a weekly basis).
- An occasional contributor (contributes on a monthly basis or less).
- An 'emeritus' contributor (very sporadic contributions, used to contribute more).

The responses indicate that most of the survey respondents (61%) contribute to Debian on a weekly basis or more frequently, while nearly one third (31%) contribute monthly or less frequently. Eight percent of the respondents selected the 'emeritus' contribution frequency, indicating only very sporadic contributions.

<sup>&</sup>lt;sup>1</sup> https://lists.debian.org/debian-devel-announce/2022/04/msg00007.html

<sup>&</sup>lt;sup>2</sup> While subscriptions to debian-devel-announce are open (i.e., not restricted only to Debian Developers) all Debian Developers are required to be subscribed to debian-devel-announce, and topics on the mailing list are essentially only of interest to Debian Developers. For the purposes of this analysis it is assumed that the 1023 voting-eligible Debian Developers represent the subscriber base of the debian-devel-announce mailing list.

# Contribution Frequencey of All Respondents (Q1)



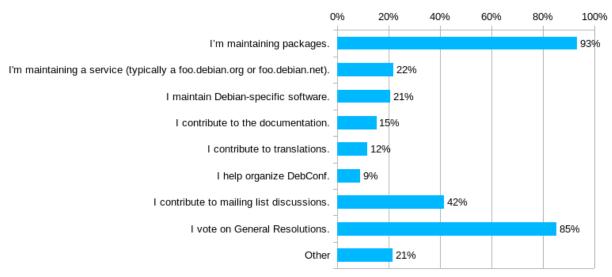
#### **FUNCTIONAL ROLES**

In order to understand the functional roles of the survey respondents, the second question in the survey was "What are you doing in Debian (please check all that apply)?" The possible answers were:

- I'm maintaining packages.
- I'm maintaining a service (typically a foo.debian.org or foo.debian.net).
- I maintain Debian-specific software.
- I contribute to the documentation.
- I contribute to translations.
- I help organize DebConf.
- I contribute to mailing list discussions.
- I vote on General Resolutions.
- Other

Because respondents were permitted to select multiple functional roles to reflect the breadth of their involvement in Debian, the best view of the responses to this question is to ask the question "what percentage of survey respondents associated with each functional role?" As can be seen in the chart below, nearly all survey respondents maintain packages (93%) and vote on general resolutions (85%), while nearly half participate in mailing list discussions (42%).





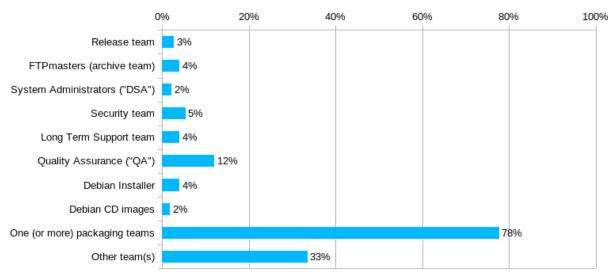
#### **TEAM MEMBERSHIPS**

The third question, like the second question, permitted survey respondents to select multiple options. In this case the options were various teams and respondents were asked to select all of the teams to which they regularly contribute:

- Release team
- FTPmasters (archive team)
- System Administrators ("DSA")
- Security team
- Long Term Support team
- Quality Assurance ("QA")
- Debian Installer
- Debian CD images
- One (or more) packaging teams
- Other team(s)

As with the second question, because respondents were permitted to select multiple team associations to reflect the breadth of their involvement in Debian, the best view of the responses to this question is to ask the question "what percentage of survey respondents associated with each team?" As can be seen in the chart below, the vast majority of survey respondents associated with one or both of "One (or more) packaging teams" and "Other team(s)".





Given the narrow scope and small size of each of the other teams, and given the strong emphasis on package maintenance as a core aspect of participation in the Debian project, it makes sense that such a large percentage (78%) of respondents associated with "One (or more) packaging teams" and that teams presented as enumerated choices also each individually represent small segments of the survey population (2% to 12%). It also makes sense that because the enumerated list of teams was not exhaustive—and lacked options for a number of important teams, including the publicity team, the community team, the web team, listmasters, and i18n/l10n-related teams, just to name a few—that one third (33%) of survey respondents chose the "Other team(s)" association.

# A NOTE CONCERNING THE ANALYTICAL METHODOLOGY

Taking into account the demographics of the survey population—those who completed the survey in its entirety—some of the remaining responses will be considered in the light of various subsets of the survey population. Specifically, because of the criticality of the functions of some of the enumerated teams in the third question of the survey, many of the survey responses will be analyzed on the basis of team membership association, when that analysis will not improperly risk exposure of individual respondent identities. In a few cases, some questions will also or alternately be analyzed based on respondents' individual role or frequency of contribution.

# MEANS AND METHODS OF PARTICIPATION IN DEBIAN

The means and methods by which contributors to Debian participate in the community are varied. Without a doubt, the bulk of project participation between community members occurs via mailing list discussions, though a wide variety of other channels exist for discussions, collaboration, packaging work, and so on. Additionally, while Debian began as a volunteer organization and even today is still primarily volunteer in its character, many members of the Debian community are compensated in some way or another to perform Debian-related work. This section will examine those aspects of the survey population.

### **MAILING LISTS**

Mailing lists are perhaps at the core of collaboration and communication within the Debian project. The complete index of Debian mailing lists indicates that there are  $327^3$  lists hosted on the Debian mailing list infrastructure. A few of those pertain to other entities with ties to Debian (such as SPI and DebConf), and many are no longer active. However, on the whole, there are many Debian mailing lists which are still very active, including those related to user discussions, development of Debian itself, non-technical discussions, translations, and language specific discussions (both programming language-specific discussions), and more.

From the earliest days of Debian, mailing lists were the de facto means for collaboration. The project was founded August 16, 1993<sup>4</sup> and the earliest messages in the mailing list archives are from very early 1994 for the debian-announce, debian-user, and debian-devel mailing lists. Today, the lists which are perhaps the most active in terms of volume of correspondence are those which deal with project-wide technical and non-technical issues.

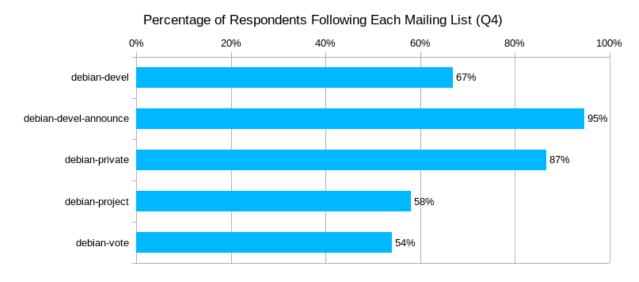
The fourth question of the survey asked respondents to identify which mailing lists they were "following." The question did not further define "following", but it is reasonable to conclude that the range of meanings span a degree of participation anywhere from "subscribed and receiving but not reading the messages" to "frequently posting in multiple threads". Respondents were asked to select all applicable choices. The possible choices were:

<sup>&</sup>lt;sup>3</sup> https://lists.debian.org/completeindex.html

<sup>&</sup>lt;sup>4</sup> https://www.debian.org/doc/manuals/project-history/intro.en.html#begining

- debian-devel
- debian-devel-announce
- debian-private
- debian-project
- debian-vote

While these selections represent a very small fraction of the total number of active Debian mailing lists, these are the lists to which the largest cross-section of Debian developers and community members interested in the development of Debian (as compared to those interested in user-centric issues) are subscribed. As with the previous multi-selection questions, the responses to this question are best expressed as the percentage of respondents who follow each list.



Nearly all survey respondents (95%) are following the debian-devel-announce mailing list. This list is not a normal discussion list, so it has a very low volume of traffic and the messages which are posted to the list are limited to those which concern matters of significance to all Debian developers. Interestingly, in theory all Debian developers are required to subscribe to this list, which would create the expectation that 100% of respondents would have reported following this particular list. The next most popular list, debian-private, is followed by 87% of survey respondents. It is the only official project-wide mailing list which is not public. Subscription is strictly limited to only Debian developers and the list traffic is not archived via the normal public means.

About half to two thirds of survey respondents (54% to 67%) reported following one or more of the debian-devel, debian-project, and debian-vote mailing lists. The

debian-devel mailing list is intended for technical discussions of a general nature that concern the development of Debian (e.g., major packaging changes, packaging policy discussions, general interest discussions concerning major library transitions, etc.). The debian-project mailing list is meant for non-technical discussions that concern the project as a whole. The discussions on this list might span topics as broad as matters related to DebConf (the Debian Conference), project goals, questions about whether particular practices or policies are in conflict with the Debian Social Contract, and improvements to the process for bringing new developers into the project, just to name a few. The debian-vote mailing list is reserved for discussions specifically having to do with project-wide votes, such as Debian Project Leader (DPL) elections, General Resolutions (GR), and amendments to the Debian constitution.

It is perhaps worth noting that responses to the second survey question reflected that only 42% of survey respondents contribute to mailing lists as part of their Debian involvement. Based on that and the responses to the fourth question, it would appear that the majority of Debian participants who subscribe to mailing lists do not actively contribute to the discussions on those lists.

#### OTHER FORMS OF COMMUNICATION

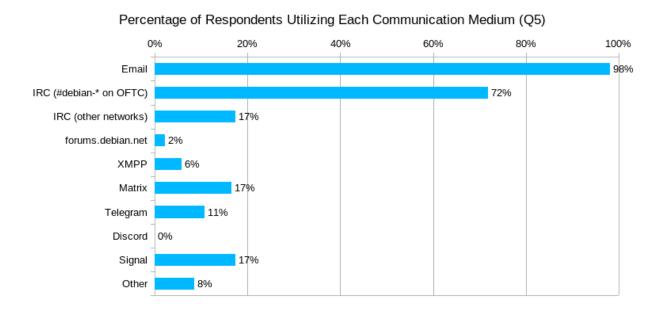
While email is by far the oldest, most common, and most popular means of communication still in active use within the Debian project, Debian developers and community members use a wide array of tools and technologies to communicate today.<sup>5</sup>

The fifth question on the survey asked respondents to select one or more means of communication that they use to connect with their Debian acquaintances. The choices given were:

- Email
- IRC (#debian-\* on OFTC)
- IRC (other networks)
- forums.debian.net
- XMPP
- Matrix
- Telegram
- Discord
- Signal

<sup>&</sup>lt;sup>5</sup> The very first announcements and discussions of the Debian project took place in Usenet newsgroups, which were still very popular in the early 90s. After a few months the Debian project began to establish its own mailing lists and migrated its discussions there.

#### Other



Email is widely known and accepted as the principal means of conducting Debian-related business or interactions. As a result, it is not surprising that 98% of respondents identified it as a means that they use to connect with their Debian acquaintances. The next most popular means of communication was IRC, specifically the official #debian-\* channels located on OFTC rather than other channels and other IRC networks, being used by 72% of survey respondents.

Of the remaining choices, none was identified as used by more than 17% of respondents. Notably, the discussion forums at forums.debian.net, which have a degree of popularity for user-centric discussions, were essentially unused by survey respondents for connecting with their Debian acquaintances.

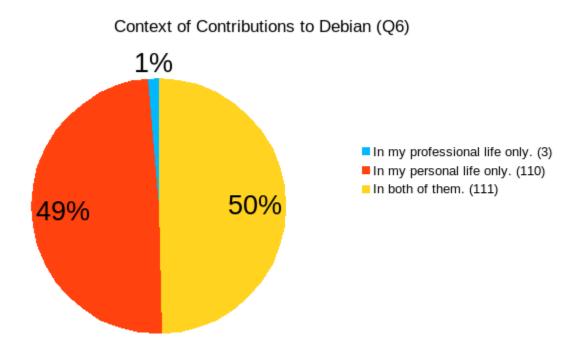
#### **CONTEXT OF DEBIAN PARTICIPATION**

When the late Ian Murdock first announced the Debian Project he was still a college student, working on Debian in his spare time without any apparent intention of being compensated financially. An early announcement documenting the list of source packages began, "We need volunteers to maintain these source packages and to make new binary packages when appropriate." Other messages to both the announcement and developer lists in those early days emphasized volunteerism and the volunteer ethos continues to be a core attribute of the Debian project up to the present.

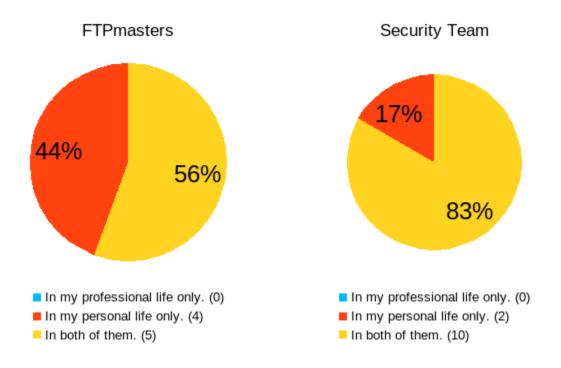
<sup>&</sup>lt;sup>6</sup> https://lists.debian.org/debian-announce/1994/msg00002.html

As the Debian project has grown and matured, and as the broader free and open source software community has also grown and matured, it has become increasingly common for Debian work to be financially compensated. In order to better understand the character of contributions to Debian, paid or volunteer, the sixth question of the survey asked each respondent to identify whether they contribute only in a professional capacity, a volunteer capacity, or a mix of both personal and professional.

The total survey population was split quite evenly, with 50% of respondents indicating that they contributed to Debian in both personal and professional contexts, 49% indicating that they contribute only in a personal context, and merely 1% indicating that their Debian contributions were entirely in a professional context. An interesting insight from this is that involvement in Debian has a personal dimension for 99% of participants.



The Debian project has a large number of teams involved in everything from maintaining individual packages, maintaining groups of packages, handling publicity, maintaining infrastructure, to security and managing releases. To better understand the character of current contributions to key aspects of the Debian project, it is useful to examine the responses associated with some key Debian teams: the FTPmasters (archive team), and the Security team. The following charts break down the personal/professional/both contribution character of members of those teams who responded to the survey.



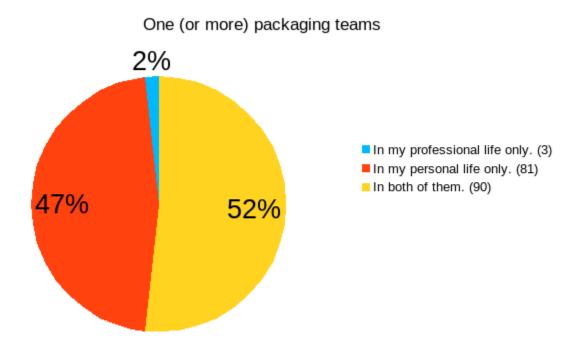
Because the responses from members of the Release team and the Debian System Administrators (DSA) were few, 6 and 5 respectively, precise quantification of their responses is nor provided here. However, neither team had any responses indicating contributions only in a professional context, while the Release team had more participants contributing in a personal-only context and DSA had more participants contributing in both professional and personal contexts. The significance of these results is that the Release team and the similarly-sized Debian Installer team (not shown in a separate chart) were the only teams with a majority of personal-only contributors.

Apart from the respondents affiliating with the Long Term Support team—of whom 100% indicated that their contributions were a mix of personal and professional—the Security team had the smallest proportion of personal-only contributions: 2 of 12 respondents (17%) indicated that their contributions were only in a personal context, while 10 of 12 (83%) indicated that their contributions were a mix of personal and professional.

Note that the survey methodology does not account for overlaps (i.e., a respondent identifying as part of multiple teams). Furthermore, the survey only permitted respondents to make the personal/professional/both distinction in a single choice. As a result, certain distinctions might not be properly reflected. For instance, consider a contributor whose employer funds security work (as a member of the Security team) and who is a member of the System Administrators ("DSA") in a strictly personal capacity.

That respondent would certainly have selected the "both" option to describe the context of their overall Debian contributions, but they would not have been able to make the distinction that their contributions as a member of the Security team are "professional" while their contributions as a member of DSA are "personal".

A further useful consideration is that the very small number of respondents who indicated that their contributions were strictly in a professional context all chose the team affiliation "One (or more) packaging teams". The below chart shows the characterization of the contributions of the subset of respondents with that team affiliation. The group included 174 respondents, of which 3 (2%) described their contributions as only "professional", 81 (47%) indicated that their contributions were only "personal", and 90 (52%) declared their contributions as a mix of personal and professional, or "both".<sup>7</sup>



Overall, the results of this question indicate that the volunteer aspect of Debian remains a vital part of the project. Though, the results seem to suggest that non-volunteer or professional motivations play a part in the contributions of at least half of respondents. A more detailed survey, perhaps allowing respondents to describe the character of their contributions in greater detail (e.g., by allowing them to select the personal/professional/both distinction on a per-team or per-function basis and possibly by allowing them to estimate the level of influence that professional or personal

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 $<sup>^{7}</sup>$  Note that in this instance the percentages sum to more than 100% as a result of rounding.

motivations have in their contributions at a similarly granular level) would permit greater insight into answering questions concerning the ongoing importance and influence of the the volunteer culture on the Debian project.

# COMPENSATION AND LEVEL OF PARTICIPATION IN DEBIAN

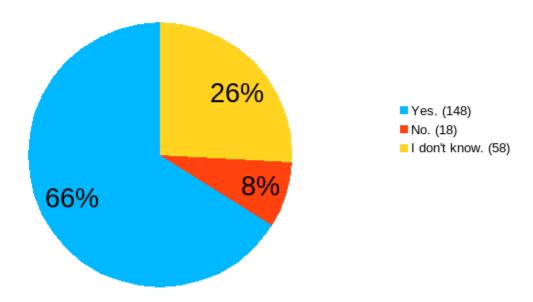
The next several questions in the survey, numbered 7 through 12, were formulated in order to determine the level of survey respondents' participation in Debian, the ways in which they are compensated for their contributions (if at all), and their desire to increase their level of participation in Debian and/or to seek future employment connected to Debian work. Some of the questions were required (i.e., respondents were not permitted to leave the particular question unanswered) and some were optional (i.e., respondents were permitted to leave the particular question unanswered). The following subsections highlight whether the particular question concerned was required or optional.

#### LONG-TERM SUSTAINABILITY OF CURRENT PARTICIPATION

The seventh and eleventh survey questions asked respondents about the long-term sustainability of their participation in Debian. The seventh question was required and so all respondents provided an answer, while the eleventh question was optional and had considerably fewer responses.

The seventh question simply asked, "Is your current Debian involvement level sustainable in the long term?" This simple question had three answer options: "Yes", "No", and "I don't know". The results indicate that a considerable majority of respondents view their current level of participation as sustainable in the long-term.





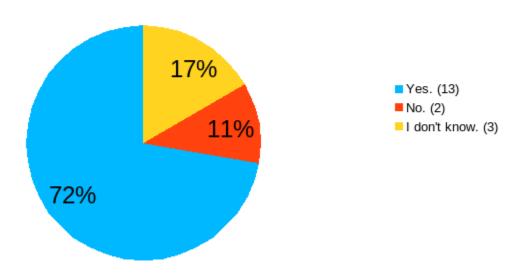
For the various team affiliations the results were largely the same. The only exception was that 52% of the respondents affiliated with the Quality Assurance ("QA") team view their level of participation as sustainable in the long-term. This may indicate a need for additional volunteers or funding to support the QA activities.

The eleventh question, which was optional, asked "Would you be able to sustain your current Debian involvement level in the long term if some of your Debian work was remunerated?" Because the question was optional only 18 respondents answered the question, though it should be noted that all respondents who answered Q11 (rather than leaving it unanswered) gave Q7 an answer of "No"<sup>8</sup>. Their responses are summarized in the below chart.

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<sup>&</sup>lt;sup>8</sup> This represented all of the "No" answers given on Q7 in the survey.

Could You Sustain Your Involvement if Some Work Was Paid? (Q11)



It seems useful to consider the responses to Q11 in light of the Q6 responses<sup>9</sup>. This will provide insight into the relation between the context of someone's contributions to Debian and whether receiving some pay for Debian work would improve long-term sustainability. Since only 18 respondents provided an answer to Q11, perhaps the best way to examine the relation is in tabular form.

Context of contributions (Q6)	Sustainable if paid? (Q11)
both	Yes
personal	Yes
personal	Yes
both	Yes
both	No
personal	Yes
both	Yes

Context of contributions (Q6)	Sustainable if paid? (Q11)
both	Yes
personal	Yes
both	Yes
personal	Yes
personal	Yes
both	I don't know
both	I don't know

<sup>&</sup>lt;sup>9</sup> Recall that Q6 asked respondents to choose whether their Debian contributions were "professional", "personal", or "both".

Context of contributions (Q6)	Sustainable if paid? (Q11)		
personal	No		
personal	Yes		

Context of contributions (Q6)	Sustainable if paid? (Q11)		
both	Yes		
personal	I don't know		

Several things stand out from this table. Only two respondents (11%) answered "No", indicating that remuneration for some of their Debian work would not improve the long-term sustainability of their contributions. One of those two described the context of their Debian contributions as "personal" and the other as "both" personal and professional. Three respondents (17%) indicated "I don't know" as to whether being paid for some of their Debian work would improve the long-term sustainability of their contributions. Two of those respondents characterized the context of their Debian contributions as "both" personal and professional and one as "personal".

The remaining 72% of respondents (13 in total) who supplied answers for Q11 indicated that receiving pay for some of their Debian work would improve the long-term sustainability of their contributions. Of those, 6 respondents (46%) indicated that they contributed to Debian in both personal and professional contexts and 7 respondents (54%) indicated that they contribute only in a personal context.

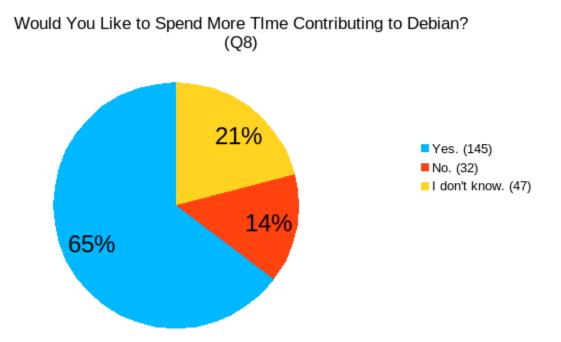
The conclusion which follows from this is that of the small number of respondents who view their current level of Debian participation as unsustainable but for whom it would become sustainable if some of their Debian work were paid (i.e., those who answered "No" on Q7 and "Yes" on Q11) there is a nearly even split between those who contribute in a personal context only and those who contribute in both a personal and a professional context. This would suggest that targeted funding may be able to produce an increase in the sustainability of Debian participation and that such efforts should make allowance for both funding of contributors who are already being funded in some way for some of their participation and also contributors who are not being compensated for any of their current Debian contributions. This could be viewed as funding to maintain the current level of Debian contribution, or possibly to prevent current contributors from reducing their participation.

#### **DESIRE TO INCREASE LEVEL OF PARTICIPATION**

Whereas the seventh and eleventh questions asked about the sustainability of respondents' current level of participation, the eighth and twelfth questions were

targeted at respondents' desires and intentions regarding their future level of participation. The eighth question asked, "Would you like to spend more time contributing to Debian?" The twelfth question asked, "Would you be able to spend more time contributing to Debian if some of your Debian work was remunerated?"

As with the seventh and eleventh questions, the eighth and twelfth questions were not both required. The eighth question was required and so all respondents (224) answered that question, while the twelfth question was optional and so only a subset of respondents (145) answered that question. All 145 answers to the twelfth question were from respondents answering "Yes" to the eighth question. The below chart summarizes the answers to the eighth question.



Nearly two thirds (65%) of respondents expressed an interest in spending more time contributing to Debian, while approximately one fifth (21%) are unsure about a desire to increase their Debian contributions and 14% of respondents do not want to increase their level of participation in Debian. Unlike the seventh question, which had essentially the same distribution of "Yes", "No", and "I don't know" responses across the various team affiliations, the distribution of responses to the eighth question varied widely depending upon team affiliation. Rather than present ten different pie charts spanning many pages, a per-team view of answers to the eighth question are presented here in table form.

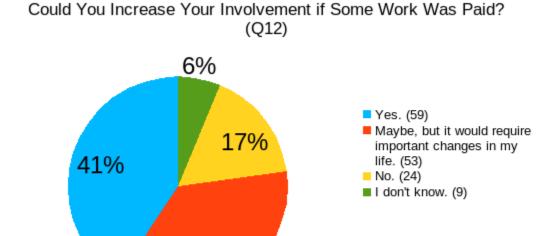
	Would You Like to Spend More Time Contributing to Debian?						
Team	# Responses	# Yes	% Yes	# No	% No	# I don't know	% I don't know
Release team	6	2	33%	2	33%	2	33%
FTPmasters (archive team)	9	7	78%	0	0%	2	22%
System Administrators ("DSA")	5	0	0%	1	20%	4	80%
Security team	12	10	83%	2	17%	0	0%
Long Term Support team	9	7	78%	0	0%	2	22%
Quality Assurance ("QA")	27	18	67%	4	15%	5	19%
Debian Installer	9	5	56%	2	22%	2	22%
Debian CD images	4	1	25%	1	25%	2	50%
One (or more) packaging teams	174	113	65%	26	15%	35	20%
Other team(s)	75	44	59%	10	13%	21	28%

There are two notable elements of this table that bear specific mention. First, in the green highlight, more than two thirds of members of each of the FTPmasters (78%), the Security team (83%), and the Quality Assurance team (67%) have a desire to increase their level of participation in Debian. The second notable element, in the yellow highlight, is that 80% of the System Administrators are unsure about their desire to increase their participation level in Debian.

This suggests two important conclusions. First, funding directed toward the existing members of the FTPmasters, the Security team, and Quality Assurance team could likely enable an increased level of participation by some of the existing members of those teams. Each of those teams fulfills critical functions for the project and all three teams are generally known to have backlogs of work which could benefit from additional resources directed toward them. Second, the System Administrators team (which has 8

members<sup>10</sup>, of which 5 participated in the survey) appears to be at risk in terms of the ability to increase the overall level of participation of existing team members. Options to address this may include funding new team members to further distribute the workload and raise the overall participation level, or a targeted survey specifically to ascertain the reasons underlying the uncertainty implied by the "I don't know" answers to the eighth question.

The twelfth question, which was optional, asked participants "Would you be able to spend more time contributing to Debian if some of your Debian work was remunerated?" Because the question was optional only 145 respondents answered the question, though it should be noted that all respondents who answered Q12 (rather than leaving it unanswered) gave Q8 an answer of "Yes"<sup>11</sup>. Their responses are summarized in the below chart.



As with the responses to the eleventh question, it seems useful to consider the responses to the twelfth question in light of the responses to the sixth question<sup>12</sup>. Given the larger number of responses to the twelfth question, as compared to the eleventh question, the

results are presented in two charts.

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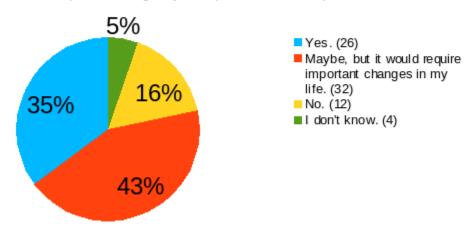
<sup>&</sup>lt;sup>10</sup> https://www.debian.org/intro/organization#dsa

<sup>&</sup>lt;sup>11</sup> This represented all of the "Yes" answers given on Q8 in the survey.

<sup>&</sup>lt;sup>12</sup> Recall that Q6 asked respondents to choose whether their Debian contributions were "professional", "personal", or "both".

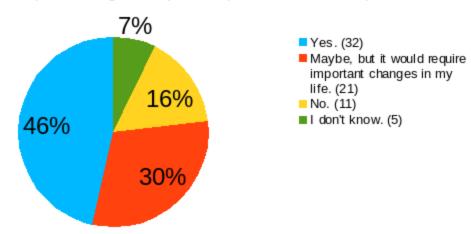
# Could You Increase Your Involvement if Some Work Was Paid? (Q12)

(Contributing onlyl in a personal context)



# Could You Increase Your Involvement if Some Work Was Paid? (Q12)

(Contributing in both personal/professional contexts)



No chart is shown for respondents indicating only "professional" in answer to the sixth question. In that instance, the two respondents also answered the twelfth question; one answered "Yes" and the other "No".

The responses to the twelfth question suggest that a considerable number of survey respondents would be able to increase their involvement in Debian if some of the work

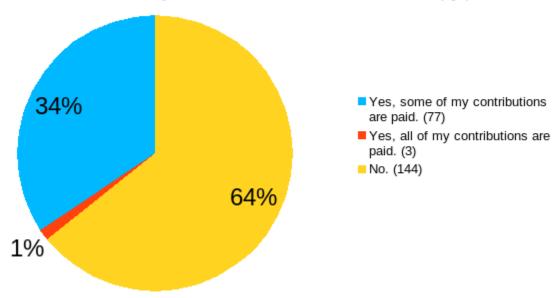
was paid. Of those currently contributing to Debian only in a personal context 35% (26 respondents) and of those currently contributing to Debian in both a personal and a professional context 46% (32 respondents) indicated that greater Debian involvement was possible without further conditions apart from some of the work being paid. A response of "Maybe" was given by 43% (32 respondents) of those currently contributing to Debian only in a personal context and by 31% (20 respondents) of those currently contributing to Debian in both a personal and a professional context. Recall that the full text of the "Maybe" response is "Maybe, but it would require important changes in my life."

The survey did not seek to further determine what sorts of life changes might be needed on the part of those who responded with "Maybe". It seems reasonable to assume that the bulk of major life changes that might be required for those specific respondents fall into two categories: personal and professional. These changes might include things like making arrangements to care for a child or other family member, reconsidering personal allocation of time across various activities, dealing with local requirements for establishing a business entity, exiting client projects in order to have time for additional Debian contributions, or taking the time and effort to engage professional advice in matters related to taxation and self-employment. A follow-up survey may help determine with a degree of confidence what sorts of changes respondents would need to make to support an increased level of involvement in Debian and whether additional targeted assistance would help improve outcomes of funding Debian work.

#### DEBIAN PARTICIPATION AND CURRENT/FUTURE EMPLOYMENT

The ninth and tenth question on the survey asked, respectively, "Are you currently working a job that pays some or all of your contributions to Debian?" and "Would you like to get a job where you can contribute to Debian?" The ninth question was required, so all 224 survey respondents answered that question, while only 110 respondents answered the optional tenth question. The responses to the ninth question are summarized in this chart.





One interesting item to note is that while in answer to the sixth question<sup>13</sup> 50% (111 respondents) indicated that their contributions were made in both personal and professional contexts, in answer to the ninth question only 34% (77 respondents) indicated that some of their contributions were paid by their current job. This suggests that some segment of "professional" contributions to Debian might be either not paid (e.g., as a member of a standards committee, perhaps) or not connected a contributor's primary employment (e.g., someone is primarily employed for a company with no connection to Debian and the individual might perform freelance work or contract-based work as an independent consultant).

Interestingly, the three respondents who indicated for Q9 that all of their Debian contributions are paid also indicated for Q6 that they contributed in both personal and professional contexts, while the three respondents who indicated for Q6 that they contributed only in a professional context indicated for Q9 that only some of their Debian contributions are paid. This seems to suggest the possibility of a difference in understanding among respondents as it pertains to distinctions between personal/professional and paid/unpaid work. It is also possible that respondents viewed the two questions as somewhat independent of each other. For example, someone might have a job where 25% of their time is spent on work that would be considered Debian contributions and no personal time outside of work is spent on Debian. In that case, the

<sup>13 &</sup>quot;In what context(s) are you contributing to Debian?"

respondent would likely have selected "professional-only" for Q6 and "some contributions are paid" for Q9. Another possible scenario is someone who holds traditional employment where part of that paid work time is spent on Debian contributions and who also separately works as an independent contractor or freelancer to perform additional paid Debian work. They might view the independent contract or freelance work as "personal" in character because it is not associated with a traditional employment arrangement. In that case, the respondent might have chosen "both personal and professional" in answer to Q6 and "all contributions are paid" in answer to Q9.

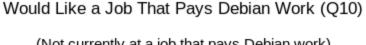
Based on the results and correlation between the sixth and the ninth questions in the aforementioned instances, it seems that there could be a benefit to reformulating the questions, perhaps by allowing respondents to choose percentages. For example, "What percentage of your Debian contributions are personal in nature? (Choose 100% for all personal and no professional contributions, and choose 0% for all professional and no personal contributions)". A similar formulation to represent the percentage of Debian work that is paid for Q9 (rather than a simple all/some/none breakdown) would also potentially be helpful.

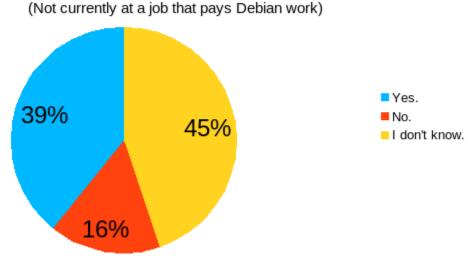
For the responses to the tenth question it makes sense to consider them in relation to the responses to the ninth question. The table below shows the relationship between the answers to the two questions. Recall that the ninth question asked "Are you currently working a job that pays some or all of your contributions to Debian?" and the tenth question asked "Would you like to get a job where you can contribute to Debian?" Also recall that the tenth question was optional.

Q9: Are you currently working a job that pays some or all of your contributions to Debian?						
Q10: Would you like to get a job where you can contribute to Debian?						
	Q10: Yes Q10: No Q10: I don't know					
Q9: Yes (all)	0	0	0			
Q9: Yes (some)	1	1	1			
Q9: No 42 17 48						

Of those who answered the ninth question "Yes, some of my contributions are paid." or

"Yes, all of my contributions are paid.", 80 respondents in all, only three provided answers to the tenth question. Their responses to the tenth question were one each of "Yes," "No," and "I don't know." As for those who responded "No" to the ninth question and who then went on to answer the tenth question<sup>14</sup>, their answers are summarized in the below chart.





This suggests that for at least some segment of the survey respondents the prospect of being employed at a job where some level of contribution to Debian is part of the paid work is appealing. Further research, perhaps via a follow-up survey, could help to ascertain whether there is a preference toward a traditional employment arrangement, a contract-based work model, or perhaps even a gig work model among those who desire to be paid for some or all of their contributions to Debian.

# **IDEAS FOR IMPROVING DEBIAN**

The thirteenth question in the survey asked respondents of their awareness of the *Grow Your Ideas* project<sup>15</sup>. This project was created by Kentaro Hayashi in response to a discussion on the debian-project mailing list<sup>16</sup>. The intent of the *Grow Your Ideas* project is to serve as a nucleus of brainstorming for ideas intended to improve various aspects of

<sup>&</sup>lt;sup>14</sup> There were 144 "No" responses to Q9 and of those only 107 provided answers to Q10.

<sup>15</sup> https://salsa.debian.org/debian/grow-your-ideas

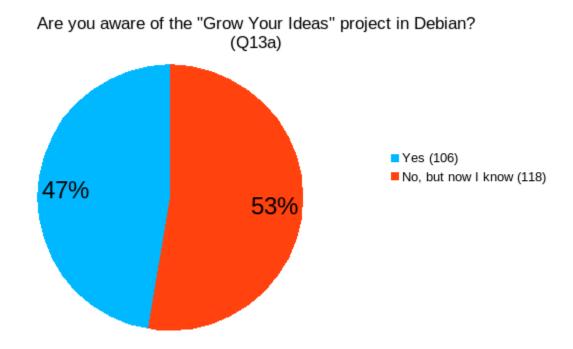
<sup>&</sup>lt;sup>16</sup> https://lists.debian.org/debian-project/2021/04/msg00007.html

Debian (e.g., the distribution, the project infrastructure, etc). Ideas can be submitted as issues to the project, discussed, improved, and voted on. As ideas mature and support for them grows, they can become candidates for the *Project Funding*<sup>17</sup> initiative sponsored by Freexian.

After asking respondents of their general awareness of the *Grow Your Ideas* project, several specific project ideas were presented and respondents were asked to rank their importance to the Debian project.

### **AWARENESS OF "GROW YOUR IDEAS"**

The first subquestion, identified as Q13a, asked "Are you aware of the *Grow Your Ideas* project in Debian?" The responses are summarized in the chart below.



Slightly fewer than 50% (106 respondents) were aware of the *Grow Your Ideas* project prior to the survey, while the remaining 118 respondents learned of the project upon encountering this question.

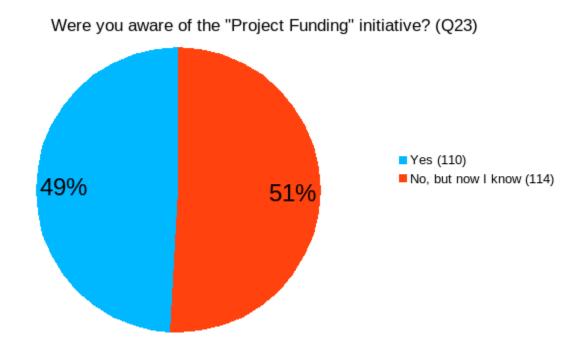
## **AWARENESS OF "PROJECT FUNDING"**

Although the question concerning awareness of the Freexian-sponsored *Project Funding* initiative did not come until much later in the survey (it was the twenty-third question), because of the connection between *Grow Your Ideas* and *Project Funding* it makes sense

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<sup>&</sup>lt;sup>17</sup> https://salsa.debian.org/freexian-team/project-funding

to consider the responses to the *Project Funding* question now. The question, precisely, was "Were you aware of the possibility to request a grant from Freexian for projects improving Debian? It's our *Project Funding* initiative." As with the question about awareness of the *Grow Your Ideas* project, the possible answers were "Yes" or "No, but now I know". The distribution of responses was very similar to the responses concerning awareness of the *Grow Your Ideas* project and they are summarized in the chart below.



Barely fewer than 50% (110 respondents) were previously aware of the *Project Funding* initiative, while just over 50% (114 respondents) were not aware of it prior to encountering this question.

#### **SPECIFIC PROJECT IDEAS**

Returning to the thirteenth question, the second subquestion was identified as Q13b on the survey and it presented 19 distinct project ideas. Respondents were instructed, "For each of the ideas listed below, please rate its importance for Debian from 1 (not important at all) to 10 (very important). If you are against the idea, please rate it with 0 (unacceptable)." The project ideas presented were:

- [b1] Debian should track issues in user stories and not just packages.
- [b2] Debian should provide high quality ansible roles (and/or salt formulas, etc).
- [b3] Debian should allow to upload packages by pushing a signed git tag.
- [b4] Debian should provide personal/extra package repositories for Debian

- developers/teams.
- [b5] Debian should have a default standard packaging workflow.
- [b6] Debian should rethink/clarify the objectives of the NEW queue review.
- [b7] Debian should create a unified workflow for package review and use it everywhere applicable.
- [b8] Debian should migrate packages without any VCS into salsa.
- [b9] Debian should provide a better infrastructure to manage transitions.
- [b10] Debian should build a packaging team to maintain vital system components.
- [b11] Debian should publicly support usage of the testing release.
- [b12] Debian should have an unstable-proposed-updates suite for use during freeze.
- [b13] Debian should formalize its reimbursement process to reduce extra paperwork.
- [b14] Debian should make it easy for blends and derivatives to build and host images.
- [b15] Debian should make it easy to fork packages and/or the distribution.
- [b16] Debian should further trim the base system for the benefits of containers and embedded systems.
- [b17] Debian should complete the merged-/usr transition.
- [b18] Debian should switch wiki.debian.org from MoinMoin to Mediawiki.
- [b19] ports.debian.org should be managed with dak and britney.

The tag (e.g., [b1], [b2], etc) in front of each idea, along with a short description, will be used in subsequent tabular representations of the responses to this question for the sake of brevity. Refer to the above list to determine the idea represented by a particular tag. It makes sense to first consider all of the responses in aggregate, as represented in the following table (column descriptions follow after the table).

ldea	# Responses	% Responses	Mean	Median	0-count
b1 (user stories)	182	81%	4.692	5	8
b2 (Ansible roles)	185	83%	4.324	5	16
b3 (git tag upload)	203	91%	6.690	7	3
b4 (PPAs)	207	92%	6.295	7	7
b5 (default workflow)	208	93%	6.952	8	10

Idea	# Responses	% Responses	Mean	Median	0-count
b6 (rethink NEW)	202	90%	6.594	7	7
b7 (unified package review)	201	90%	6.413	7	8
b8 (non-VCS to Salsa)	207	92%	6.159	7	15
b9 (transition infra)	168	75%	6.292	7	2
b10 (vital components team)	183	82%	6.235	7	11
b11 (encourage testing use)	205	92%	5.673	6	12
b12 (unstable-pu for freeze)	189	84%	5.042	5	18
b13 (formalize reimbursements)	172	77%	5.744	6	5
b14 (easier blends/derivs)	181	81%	5.204	5	12
b15 (easy to fork)	182	81%	4.703	5	12
b16 (trim base sys)	206	92%	5.981	7	8
b17 (finish merged-/usr)	191	85%	7.361	8	11
b18 (wiki to MediaWiki)	166	74%	5.289	5	15
b19 (manage ports.d.o)	136	61%	5.316	5	7

# The columns represent:

- Idea the specific idea respondents were asked to rate
- # Responses the count of ratings assigned to the specific idea (224 is the total number of survey responses and thus the highest possible value for this column)
- % Responses the percentage of respondents assigning a rating to the specific idea (i.e., the "# Responses" divided by 224 and expressed as a percentage)
- Mean the statistical arithmetic mean of the ratings assigned the specific idea
- Median the statistical median of the ratings assigned the specific idea
- 0-count the number of zero (0) ratings assigned to the specific idea (this gives insight into ideas that might attract a strong negative sentiment)

Before beginning to analyze the results, it is important to note that the question of

awareness of the *Grow Your Ideas* project and the rating of specific ideas does not involve funding. That is to say, other survey questions cover whether particular ideas ought to be funded, sources of funding, means of managing funding allocation, and so on. The ideas which respondents rated in this question were intended to be viewed through the lens of "how important is this to Debian?" without consideration for funding-related aspects.

The idea with lowest response rate was "[b19] ports.debian.org should be managed with dak and britney." Only 136 respondents, or 61%, assigned a rating to that specific idea. The mean rating for that idea was 5.316 and the median was 5, indicating that the idea is not viewed as especially important nor especially unimportant by those who rated it.

The mean ratings range from a low rating of 4.324 for [b2] and a high of 7.361 for [b17]. Additionally, each idea seems to have attracted a number of zero (0) ratings, where a rating of 0 indicates that the respondent found the idea to be unacceptable. The ideas with the fewest zero (0) ratings are:

- [b9] Debian should provide a better infrastructure to manage transitions. (0-ratings: 2)
- [b3] Debian should allow to upload packages by pushing a signed git tag. (0-ratings: 3)
- [b13] Debian should formalize its reimbursement process to reduce extra paperwork. (0-ratings: 5)

This indicates that these particular ideas, while not having the highest numeric rating in terms of importance to the project, have broad acceptance among active members of the Debian community. This makes sense considering that implementation of these ideas is likely to result in broad improvements benefiting many or most Debian users. Better management of transitions will improve the experience for users of Debian's testing and unstable distributions. Allowing package uploads triggered by pushing a signed Git tag will streamline packaging workflows for many individual maintainers and teams. Formalizing the reimbursement process will likely improve the ability of contributors to participate in Debian-related events and to gain access to specialized items to support Debian work.

Based on mean rating, the three highest rated ideas are:

- [b17] Debian should complete the merged-/usr transition. (mean rating: 7.361)
- [b5] Debian should have a default standard packaging workflow. (mean rating: 6.952)

• [b3] Debian should allow to upload packages by pushing a signed git tag. (mean rating: 6.690)

The merged-/usr effort has been ongoing for several years. While the whole process did involve some controversy and difficulty, it is clearly considered important by a significant portion of survey respondents. It is important to note that the transition was announced<sup>18</sup> and began on 17th September 2022. It is likely that the transition will be complete, or mostly so, by the time this report achieves wide distribution. The other two ideas which received high ratings have to do with a default standard packaging workflow and the ability to upload packages by way of pushing a signed Git tag. Both of these ideas would likely enable more streamlined workflows for normal package maintenance, QA work, security work, etc. It is worth examining the mean ratings of these ideas based on some team affiliations.

Idea	Release Team	Security Team	LTS Team	QA	Pkg Team
[b5]	4.400	6.333	6.000	7.538	6.951
[b3]	4.000	5.500	6.889	6.846	6.646

While the overall survey population found these ideas to be compelling, respondents who identified as part of the Release Team did not find these two ideas to be of particular importance. Respondents affiliated with other teams—specifically the Security, LTS, QA, and packaging teams—found these ideas to be of moderate to high importance. This makes sense considering the benefit that these ideas would provide to the teams shown in the table.

Also, based on the mean rating, the three lowest rated ideas are:

- [b2] Debian should provide high quality ansible roles (and/or salt formulas, etc). (mean rating: 4.324)
- [b1] Debian should track issues in user stories and not just packages. (mean rating: 4.692)
- [b15] Debian should make it easy to fork packages and/or the distribution. (mean rating: 4.703)

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<sup>&</sup>lt;sup>18</sup> https://lists.debian.org/debian-devel-announce/2022/09/msg00001.html

The three lowest-rated ideas, which represent all the ideas with a mean rating below 5.0, seem to describe things which would require significant work on the part of Debian project contributors without appreciable benefit for the same. That is not to say that Debian project contributors are purely self-interested, rather that impact or benefit of these ideas would be fairly limited in scope and that the low ratings may be attributable to the limited impact of these ideas given the significant amount of work involved.

# **FUNDING DEBIAN CONTRIBUTIONS**

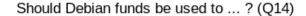
Given that there are a variety of ideas which could be implemented to improve Debian, the survey now turns toward the matter of funding. There are multiple survey questions dedicated to ascertaining who can be funded, sources of funding, types of work that can be funded, specific ideas that can be funded, terms and conditions for funding, specific ideas and roles to fund, and oversight of funding.

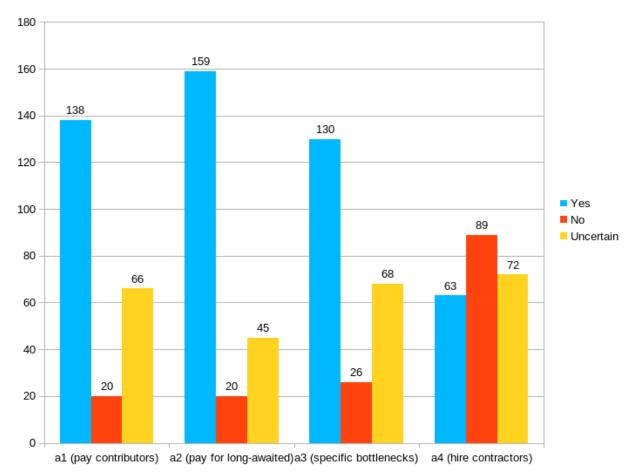
# **WHO CAN BE FUNDED (ANALYZED OVERALL)**

The fourteenth question of the survey is stated, "Debian has lots of money on its own, and it can benefit from external funding on targeted projects as well. Please indicate whether you agree/disagree with the following assertions:" These are the specific statements which respondents were asked to consider:

- [a1] As a Debian contributor, I would be fine with having Debian pay other Debian contributors.
- [a2] Debian should experiment with paying Debian contributors to implement long-awaited improvements.
- [a3] Debian should experiment with paying Debian contributors to get rid of specific bottlenecks (e.g. NEW processing).
- [a4] I am fine with hiring contractors and/or staff who are not already Debian contributors to contribute to Debian.

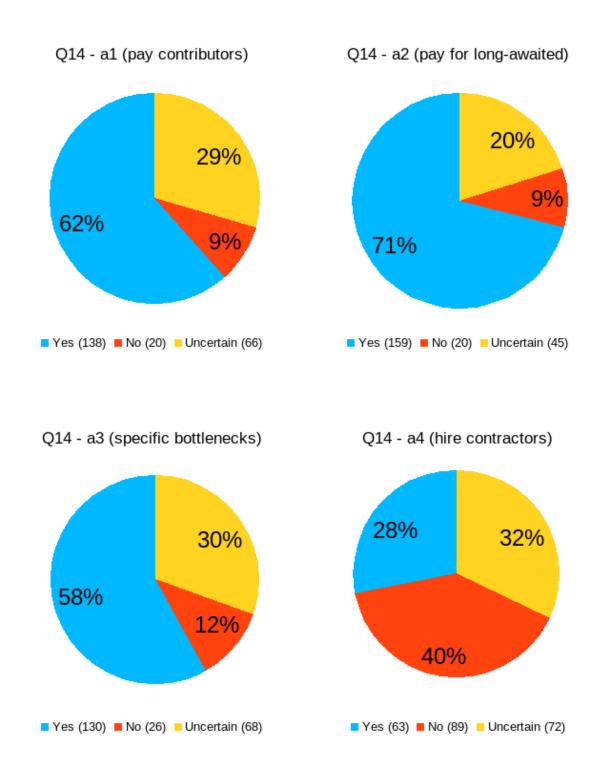
As with the previous (thirteenth) question, the various statements here are noted with tags and in the subsequent discussion the tags are referenced for the sake of brevity. The responses are summarized in the chart below.





The chart shows that there is overwhelming support for paying Debian contributors, for experimenting with paying for long-awaited improvements, and for experimenting with paying to eliminate specific bottlenecks. The idea of hiring contractors and/or staff who are not already Debian contributors, however, did not have much support (only 28% of respondents answered "yes" in that case). It is worth noting that the first three statements all deal with paying Debian contributors. The first deals simply with paying Debian contributors without qualifying a particular genre or category of work. The second and third deal with paying Debian contributors to work on long-awaited tasks and on specific bottlenecks, respectively. The fourth statement is the only one that deals with the idea of paying people who are not Debian contributors.

For further clarity, it is useful to look at the responses to each individual statement in terms of percentages, as shown in the following charts.



When it comes to the idea of paying Debian contributors in general, the statement tagged [a1], 62% (138 respondents) agreed with the idea, 29% (66 respondents) were uncertain about it, and only 9% (20 respondents) disagreed. When considering the idea of paying

Debian contributors to implement long-awaited improvements, the statement tagged [a2], there was even stronger support than for the previous statement. Seventy-one percent (159 respondents) agreed with statement [a2], 20% (45 respondents) were unsure, and only 9% (20 respondents disagreed). The third statement, tagged [a3], concerned paying Debian contributors to address specific bottlenecks and 58% (130 respondents) agreed with the statement, 30% (68 respondents) were uncertain, and 12% (26 respondents) disagreed. It is worth noting that the survey question gave a concrete example of a bottleneck task by identifying NEW queue processing as one such bottleneck. It is possible that citing this specific example may have introduced a bias into the responses. It is also possible that the observable difference between support for [a2] and [a3] may result from a higher level of comfort with paying for implementation of specific features rather than for paying for ongoing operational support tasks.

The fourth statement, tagged [a4], dealt with hiring contractors and/or staff who are not already Debian contributors. The responses to this statement were 28% (63 respondents) in agreement, 32% (72 respondents) uncertain, and 40% (89 respondents) in disagreement. This seems to suggest a general resistance to paying people who are not already Debian contributors. It is worth noting that Debian already pays external entities (e.g., for legal and financial services), but it seems likely that survey respondents would treat those types of external entities and the associated work as distinctly different from the idea of paying Debian contributors. Statement [a4] specifically included "to contribute to Debian" as part of the text. Thus, the low level of support for this statement could be interpreted as a resistance to pay external entities to perform work that people within Debian are already performing (whether paid or unpaid).

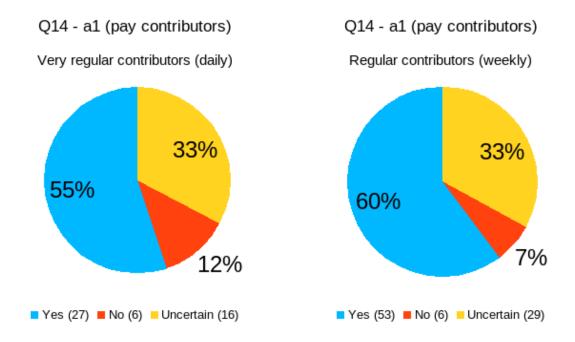
The responses to these statements indicate that the least controversial pool from which to draw people who could be considered candidates for being funded directly by Debian are those who are already actively contributing to Debian in some way.

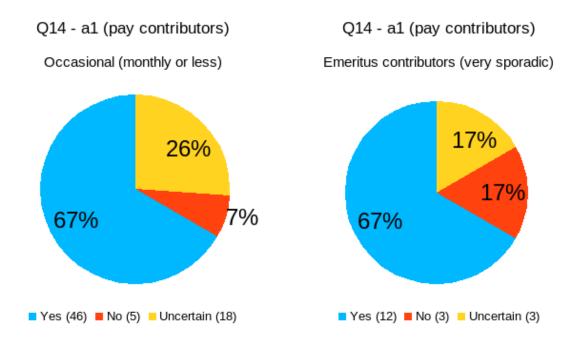
## WHO CAN BE FUNDED (ANALYZED BY CONTRIBUTION FREQUENCY)

It makes sense to consider the idea of who can be funded, whether by Debian funding or by external funding (as asked in the fourteenth question), and how support for the various statements presented might change based on the contribution frequency of survey respondents. For this part of the discussion each of the statements, [a1] through [a4], will be considered and for each statement the distribution of responses will be examined based on contribution frequency of the respondents. As discussed earlier in this analysis, respondents were asked to select their contribution frequency from the following options:

- A very regular contributor (contributes almost on a daily basis).
- A regular contributor (contributes on a weekly basis).
- An occasional contributor (contributes on a monthly basis or less).
- An 'emeritus' contributor (very sporadic contributions, used to contribute more).

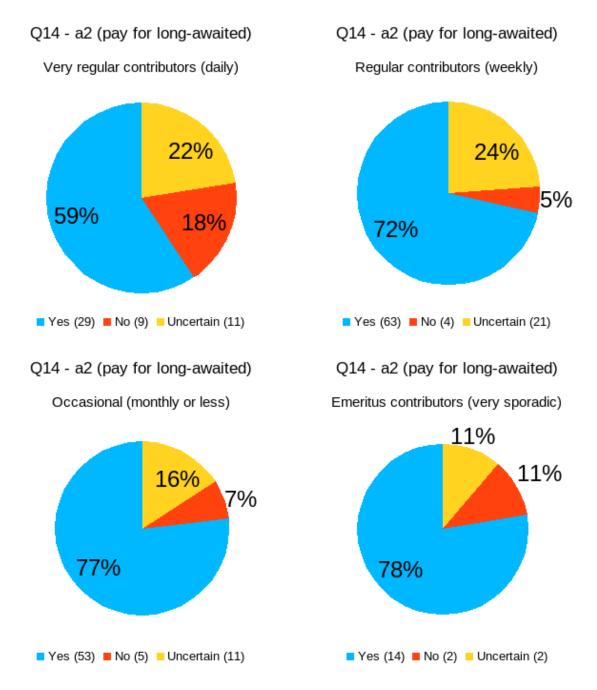
The first statement to consider is [a1], "As a Debian contributor, I would be fine with having Debian pay other Debian contributors." The following four charts show the breakdown of responses (yes, no, and uncertain) based on the contribution frequency of the respondents.





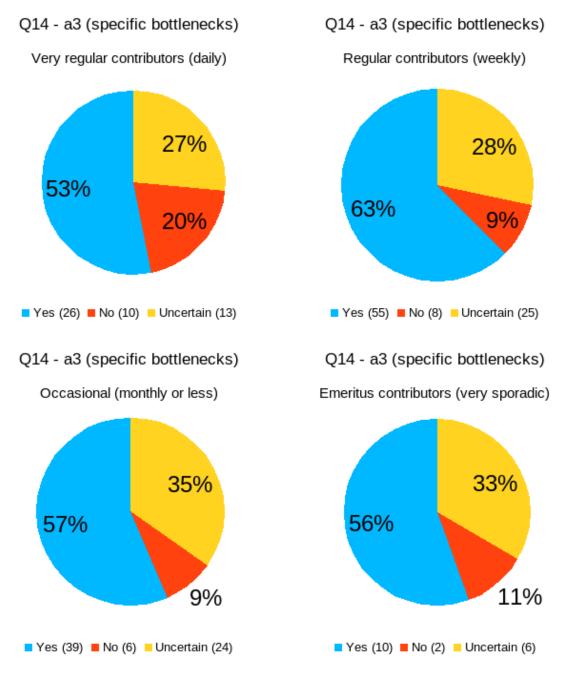
There is a clear trend with both the "yes" responses and the "uncertain" responses, while the "no" responses do not exhibit a clear trend. As contribution frequency declines support increases for the idea presented in [a1]. "Yes" responses go from 55% (daily), to 60% (weekly), to 67% (monthly or less, and very sporadic), while "uncertain" responses go from 33% (daily and weekly), to 26% (monthly or less), to 17% (very sporadic). It is possible that contribution frequency is in some way a proxy for longevity in the Debian project, with daily contributors possibly being newer to the project and emeritus contributors having the greatest longevity as far as project involvement. A follow-up survey that asked one or more specific questions concerning longevity within the project would help clear this ambiguity. Regardless, it seems that there is an inverse correlation such that the lower an individual's contribution frequency the more likely they are to support the Debian project paying contributors and the less likely they are to be uncertain about it.

The next statement to consider is [a2], "Debian should experiment with paying Debian contributors to implement long-awaited improvements." The following four charts show the breakdown of responses for [a2].



As with [a1], the distribution of responses for [a2] exhibits an inverse correlation between contribution frequency and support for paying Debian contributors (in this instance to implement long-awaited improvements). The "yes" responses went from 59% (daily), to 72% (weekly), to 77% (monthly or less) and finally to 78% (very sporadic), while the "uncertain" responses went from 22% (daily), to 24% (weekly), to 16% (monthly or less), to 11% (very sporadic). The "no" responses did not exhibit a clear trend, as was the case with [a1].

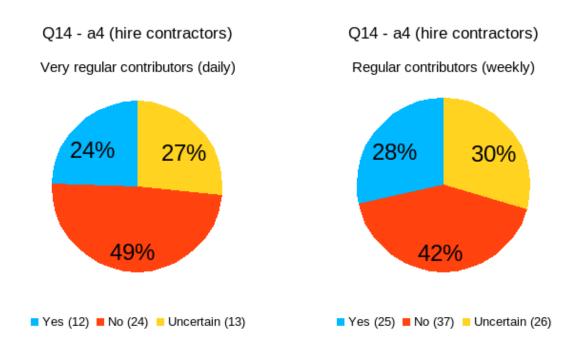
The third statement to be presented was [a3], "Debian should experiment with paying Debian contributors to get rid of specific bottlenecks (e.g. NEW processing)." As previously noted, the inclusion of NEW processing as a concrete example may have introduced a bias into the responses.

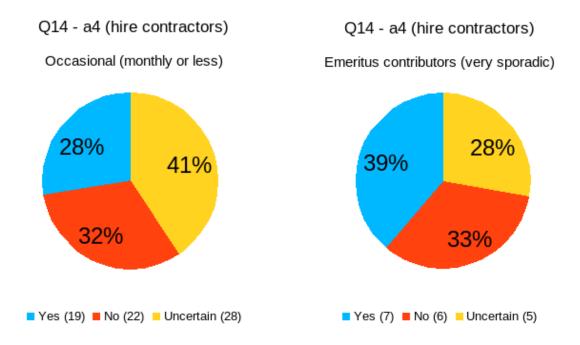


Unlike the responses to [a1] and [a2], the responses to [a3] do not appear to exhibit a clear trend. The distribution of responses will again be considered in the next section,

but based on team affiliation. The responses to [a3] will receive particular attention in that discussion to see if the team affiliation of respondents provides insight which the distribution of responses based on contribution frequency fails to provide.

The last of the four statements was [a4], "I am fine with hiring contractors and/or staff who are not already Debian contributors to contribute to Debian." Like the responses to [a1] and [a2], the responses to [a4] also exhibited an inverse correlation between contribution frequency and support for the idea, though in this instance it was not quite so pronounced a correlation as before.



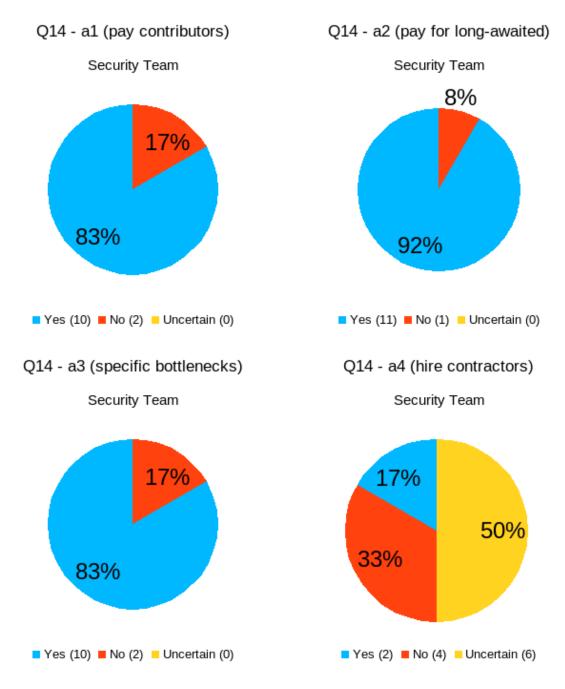


The "yes" responses ranged from 24% (daily), to 28% (weekly, and monthly or less), to 39% (very sporadic). The "uncertain" responses did not follow a clear trend, fluctuating somewhat, but unlike the previous response distributions the "no" responses did follow a trend. There was a direct correlation between contribution frequency and "no" responses, with higher contribution frequency being associated with more "no" responses. The "no" responses ranged from 49% (daily), to 42% (weekly), to 32% (monthly or less), and finally to 33% (very sporadic). While a decreasing number of "no" responses simply indicates less resistance to the idea, it still gives a key insight concerning this idea. The higher an individual's contribution frequency the more likely they are to oppose the hiring of contractors and/or staff who are not already a part of Debian.

## **WHO CAN BE FUNDED (ANALYZED BY TEAM AFFILIATION)**

While the previous section examined the distribution of responses based on the contribution frequency of respondents, this section will examine the distribution based on team affiliation. However, since there were 10 choices of team affiliation and since respondents were able to choose multiple team affiliations, it does not seem particularly useful to examine the responses for each and every team affiliation one-by-one, as was done in the previous section for contribution frequency. Instead, the analysis will focus on a select subset of team affiliations where it provides new insight beyond what has been discussed in the preceding two sections.

One team affiliation that produced a vastly different distribution of responses, as compared with the overall distribution and the distribution by contribution frequency, was the Security Team. The survey responses included 12 respondents affiliated with the Security Team. The four charts below capture the distribution of responses for respondents identifying as affiliated with the Security Team:



The responses of Security Team members are rather illuminating. For [a1], [a2], and [a3]

they are far more supportive of paying Debian contributors than the general survey population. Looking at [a1] and [a3], which had identical response distributions, 83% (or 10 out of 12 respondents) answered "yes" while 17% (or 2 out of 2 respondents) answered "no". For [a2] it was 92% (11 of 12 respondents) answering "yes" and 8% (1 of 12) answering "no". Compare with overall "yes" percentages of 62%, 71%, and 58%, for [a1], [a2], and [a3], respectively. The response distribution for [a4] was also different from the overall, with 17% (2 of 12 respondents) answering "yes", compared with 28% overall "yes" responses, and 33% (4 of 12 respondents) answering "no", compared with 40% overall "no" responses. The most significant difference was in the "uncertain" responses, which were 50% (6 of 12 respondents), compared with 32% overall "uncertain" responses.

These results suggest several things. First, as noted in the last paragraph, Security Team members appear much more supportive of paying Debian contributors, whether or not it is for the implementation of long-awaited improvements, to address specific bottlenecks, or presumably for some other generally useful purpose. Funding of Debian contributors in ways that support the Security Team seems likely to be very well received. Additionally, while they are not as likely to support the hiring of contractors and/or staff as the overall survey population, neither are they as likely to reject the possibility, being more likely to have an "uncertain" posture toward the idea. This may indicate a willingness to experiment with contractors and/or hired staff specifically to support the Security Teams activities and objectives. A targeted follow-up survey may be able to uncover more precisely what sorts of contractor or staff hiring arrangements (e.g., level effort, specific skills, specific tasks, etc.) could potentially benefit the Security Team.

The remaining distribution subsets based on other team affiliations either had very few respondents (making comparison of those limited distributions not especially useful for drawing conclusions) or aligned very closely with the results already discussed in the overall analysis and the analysis by contribution frequency.

#### **FUNDING SOURCE AND TYPE OF WORK**

The fifteenth and sixteenth questions addressed whether or not specific types of work (i.e., types of tasks) performed by Debian contributors are appropriate to fund either directly with Debian funds or by external entities. The fifteenth question asked, "What kind of work is acceptable to be paid by Debian itself to Debian contributors?" It then presented the following statements:

• [15a1] Work that is limited in scope and not recurring.

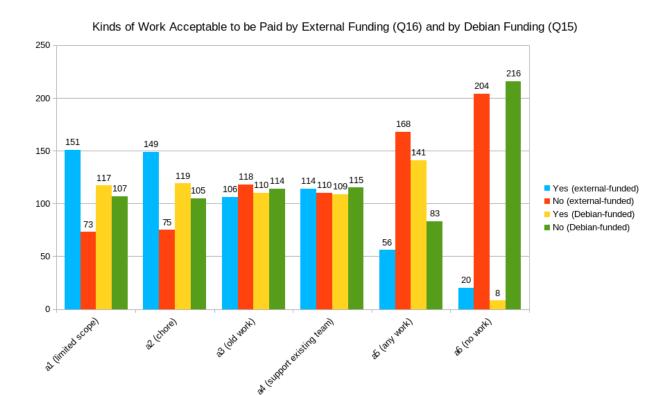
- [15a2] Work that is a chore and not enough persons currently want to do.
- [15a3] Work that no volunteer picked up in X months.
- [15a4] Work that is meant to support an existing team of Debian volunteers.
- [15a5] Any work is acceptable to be paid by Debian.
- [15a6] No work is acceptable to be paid by Debian.

The sixteenth question asked something very similar, "What kind of work is acceptable to be paid by external funding to Debian contributors?" The statements presented in conjunction with that question were the same as for the fifteenth question:

- [16a1] Work that is limited in scope and not recurring.
- [16a2] Work that is a chore and not enough persons currently want to do.
- [16a3] Work that no volunteer picked up in X months.
- [16a4] Work that is meant to support an existing team of Debian volunteers.
- [16a5] Any work is acceptable to be paid by external funding.
- [16a6] No work is acceptable to be paid by external funding.

As with some of the preceding sections, the various questions/statements being discussed in this section are identified with tags. In this case the tags identify both the survey question number and the statement under that question, as the discussion deals with both Q15 and Q16 together for the benefit of comparing the responses to understand the difference in perceived acceptability based upon the funding source.

The Yes/No responses for both the fifteenth and sixteenth questions are summarized in the same chart below.



It makes sense to first consider the limited scope and chore kinds of work, which correspond to the [##a1] and [##a2] tags. The limited scope category specifically includes non-recurring work and the chore category includes work that might commonly be considered "drudgery", which is to say "work that few or no people are interested in performing." With these two categories there is a clear difference in the perceived acceptability of paying Debian contributors depending on whether the source of funding is external or Debian itself. If the funding source is Debian then the respondents are very nearly evenly split between considering it acceptable to fund the types of work and considering unacceptable. If the funding source is external then two thirds of respondents deem it acceptable to pay Debian contributors to perform those types of work, while only one third deemed it unacceptable.

The results for the next two types of work, old work that has not been completed by a volunteer within a certain timeframe and work to support an existing team of volunteers, seem to be viewed somewhat differently by survey respondents. With these types of work there was not a meaningful difference in terms of perceived acceptability of funding based on the funding source. Put another way, regardless of whether the funding source was external or Debian itself, respondents were essentially evenly split

between considering funding of these types of works acceptable and considering it unacceptable.

It is interesting to consider that when Debian is the funding source the responses are evenly split for all four types of work discussed so far. But when external funding is considered, there is a clear preference for funding well-defined work and chores rather than work which is simply stale or which is meant to support volunteer teams without being otherwise well-defined. Funding-related discussions in past years have often raised concerns regarding perverse incentives<sup>19</sup> and disincentivizing volunteers. One oft cited example is that funding only "old" work will create an incentive to delay work until someone is willing to pay for it to be completed. Another oft cited example is that having a paid contributor doing work alongside a group of volunteers will disincentivize the volunteers and cause them to lower their level of involvement.

The fifth type of work was not a specific type of work, per se, but rather intended to ascertain the perceived acceptability of funding any work, regardless of the type of work. This is clearly seen in the phrasing of the two statements, "Any work is acceptable to be paid by Debian" and, "Any work is acceptable to be paid by external funding." When considering external funding sources, 25% (56 respondents) considered it acceptable to fund any type of work while 75% (168 respondents) considered it unacceptable. When considering Debian as the funding source, 63% (141 respondents) considered it acceptable to fund any type of work while 37% (83 respondents) considered it unacceptable. This presents an interesting dichotomy and seems to suggest that survey respondents are more comfortable with Debian funding work directly rather than external funding being applied when the type of work is not well defined. This may be because when work is well defined (as in limited scope non-recurring work, or specific chores) there is more clarity concerning the alignment of objectives but when work is not as well-defined the alignment of objectives is more difficult to achieve. If some respondents are concerned that funding from an external entity may result in the imposition of the external entity's objectives above or ahead of the objectives of the Debian project, then it stands to reason that respondents would be more comfortable with work being funded directly by Debian rather than directly by external entities.

The sixth type of work, like the fifth, was not a specific type of work, per se. It functioned as the inverse of the fifth by stating, "No work is acceptable to be paid by Debian" and "No work is acceptable to be paid by external funding." The objective of these

<sup>&</sup>lt;sup>19</sup> According to Wikipedia, "A perverse incentive is an incentive that has an unintended and undesirable result that is contrary to the intentions of its designers." c.f. https://en.wikipedia.org/wiki/Perverse\_incentive

statements was to determine what proportion of survey respondents essentially deemed that it is never acceptable to fund the work of Debian contributors. For external funding sources 9% (20 respondents) agreed that no work should ever be paid and for Debian funding 4% (8 respondents) agreed that no work should ever be paid. This suggests that the overwhelming majority of respondents are open to the idea of some Debian contributors' work being paid, depending on the specific facts and circumstances.

#### TERMS AND CONDITIONS OF FUNDING CONTRIBUTIONS

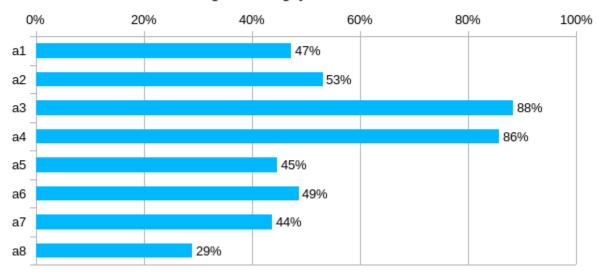
The seventeenth question of the survey sought to determine the provisions under which respondents would be happy with Debian contributors being paid. The question was stated, "On what provisions would you be happy with Debian contributors being paid?" A list of statements then followed from which respondents would choose a "yes" or "no" response. The statements were:

- [a1] I have a fair chance to apply for similar funding.
- [a2] The paid work is always reviewed/controlled by another volunteer Debian contributor.
- [a3] The paid work is planned and implemented in the open, e.g., using Salsa, Debian mailing lists and/or the BTS, and is open to contributions from anyone in Debian.
- [a4] The paid work complies with the Debian Free Software Guidelines (DFSG).
- [a5] Where the paid work is packaging, the paid work results in uploads to Debian 'main' (i.e., no paid work should benefit to non-free packages).
- [a6] The paid work uses tools added to or already in Debian 'main'.
- [a7] Debian teams may not consist solely of paid contributors.
- [a8] Paid contributors do not outnumber volunteer contributors in the same team.

As in the discussions of some of the preceding questions, tags are used for the sake of brevity in the remainder of this section. The most useful way to visualize the responses is by the percentage of respondents who chose "yes" for each of the statements. This view is presented in the chart below.

# Provisions for Debian contributors being paid (Q17)

#### Percentage choosing "yes" for each statement



The first statement was tagged [a1] and stated, "I have a fair chance to apply for similar funding." Agreeing with this statement would imply that respondents desire funding opportunities to be made available to Debian contributors with a degree of equitability. Just under half, or 47% (106 respondents), agreed that this provision would be necessary for them to be happy with Debian contributors being paid. This suggests that many respondents are either happy with the current level of funding for their own Debian contributions, that they contribute strictly in a volunteer capacity and would not seek funding even if it were available, or that they view some form of merit-based or priority-based allocation as more appropriate than one based on equitability.

The second statement was tagged [a2] and stated, "The paid work is always reviewed/controlled by another volunteer Debian contributor." From the start, Debian has been primarily a volunteer organization and it makes sense that many Debian contributors would be inclined to make paid work subordinate to volunteer work. That said, this was a required provision for just over half, or 53% (119 respondents), to be happy with Debian contributors being paid. This suggests that while a substantial portion of respondents view volunteer oversight of paid work as important, a nearly equal number do not see this as necessary.

The next two statements dealt with openness in a practical sense ([a3] was about requiring paid work to be implemented in the open, using Salsa, Debian mailing lists, the BTS and so on, and being open to contributions from anyone in Debian) and in a

philosophical sense ([a4] was about paid work being compliant with the Debian Free Software Guidelines or DFSG). These two statements were far and away the highest rated by those who took the survey, with 88% (198 respondents) agreeing with [a3] and 86% (192 respondents) agreeing with [a4]. This suggests that independent of other considerations about the type of work that might be paid and the particulars of oversight (which will be discussed shortly) that there is a very strong sentiment that paid work must be both performed in the open and also in alignment with Debian's core tenets as expressed in the DFSG.

The next two statements concerned the freeness of the paid work and the tools used to perform the work. Statement [a5] was, "Where the paid work is packaging, the paid work results in uploads to Debian 'main' (i.e., no paid work should benefit to non-free packages)." Statement [a6] was, "The paid work uses tools added to or already in Debian 'main'." Both of these statements were supported as required by just under half of those answering, with 45% (100 respondents) agreeing that [a5] was required for them to be happy with Debian contributors being paid and 49% (98 respondents) agreeing likewise with [a6].

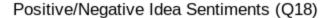
The last two statements which respondents were asked to consider as part of the seventeenth question in the survey concerned the paid versus volunteer composition of teams. Statement [a7] was, "Debian teams may not consist solely of paid contributors." The closely related statement [a8] was, "Paid contributors do not outnumber volunteer contributors in the same team." Statement [a7] was agreed to by 44% (98 respondents) while statement [a8] was agreed to by 29% (65 respondents). This suggests that fewer than 50% of respondents take team composition into account as a provision of work being paid. The relatively low percentage of "yes" responses for [a8] indicates that most respondents do not see a particular problem with having more paid contributors than volunteer contributors on a Debian team. However, the relatively higher "yes" response rate for [a7] implies that teams made up solely of paid contributors are not as well-accepted.

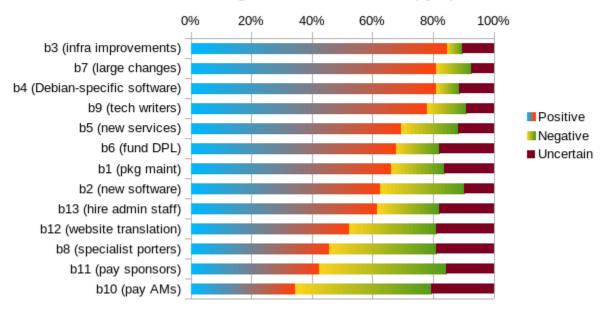
### **SPECIFIC IDEAS TO FUND**

The eighteenth question presented a variety of concrete ideas which could potentially benefit from funding and respondents were asked, "For each possible use of Debian's money quoted below, please indicate if such a use is a 'good idea', 'good idea in some specific cases', 'bad idea' or if it's 'totally unacceptable'. Select 'uncertain' if you can't make up your mind." The following ideas were then presented:

- [b1] Paying for package maintenance (handling bugs, new upstream release, improving packaging, etc).
- [b2] Paying for the initial packaging of software new to Debian.
- [b3] Paying for development of new features/improvements for Debian-specific infrastructure (e.g. bugs.debian.org, tracker.debian.org, dak, etc).
- [b4] Paying development of new features/improvements to Debian specific software (e.g. dpkg, apt, debhelper, lintian, etc).
- [b5] Paying development of new tools to experiment new workflows or new services.
- [b6] Use Debian funds to help the Debian Project Leader (DPL) role in some way.
- [b7] Pay Debian contributors to complete large scale changes in a reasonable time frame.
- [b8] Pay specialist porters to support release architectures at risk of being dropped from Debian releases due to lack of porters.
- [b9] Paying technical writers to improve the documentation for new contributors.
- [b10] Pay Application Managers to ensure we deal with new contributors in a timely fashion.
- [b11] Pay Package Review/Sponsorship when a new contributor has been unable to find a sponsor to review his work.
- [b12] Pay Package Review/Sponsorship when a new contributor has been unable to find a sponsor to review his work.
- [b13] Hiring administrative and/or support staff (e.g. an operations manager).

Given the number of ideas that respondents were asked to consider, the chart below is given to provide context for the sections that follow.



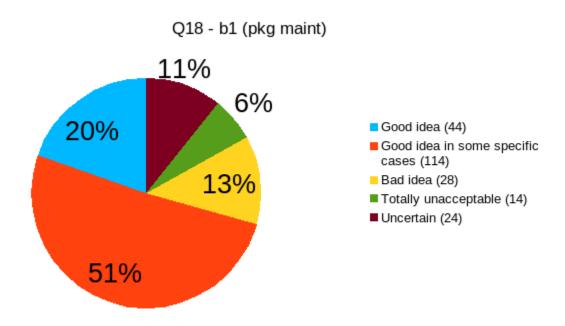


The chart is intended to give a sense of the positive/negative sentiment expressed regarding each idea, with ideas viewed most positively at the top and listed in order of descending positive sentiment. In this chart, "positive" corresponds to the choices "good idea" and "good idea in some specific cases." "Negative" corresponds to the choices "bad idea" and "totally unacceptable", while "uncertain" is the same as the "uncertain" choice in the survey. The color gradient of the "positive" data series is blue-orange and corresponds to the blue and orange areas in the pie charts in the following sections, the color gradient of the "negative" data series is yellow-green and corresponds to the yellow and green areas in the pie charts in the following sections, and the color of the "uncertain" data series is the same in the bar chart above as it is in the pie charts that follow.

There is clearly a range of support, with some ideas (like [b3], [b7] and [b4]) having positive support exceeding 80%, to [b10] with a level of positive support below 40%. In general, the most positively viewed ideas appear to be those with the highest degree of required technical effort, while the least positively viewed ideas can be seen to involve much less technical effort. The sections that follow will explore the responses to each individual idea and will examine subsets of the responses as appropriate in order to gain additional clarity.

#### PACKAGE MAINTENANCE

The first idea which respondents were asked to consider, [b1], concerned paying for package maintenance. Note that this excludes the initial packaging of new software (which is the idea of [b2]), but otherwise includes everything else that a Debian Developer or Maintainer would consider part of normal package maintenance activity. The results are depicted in the chart below.

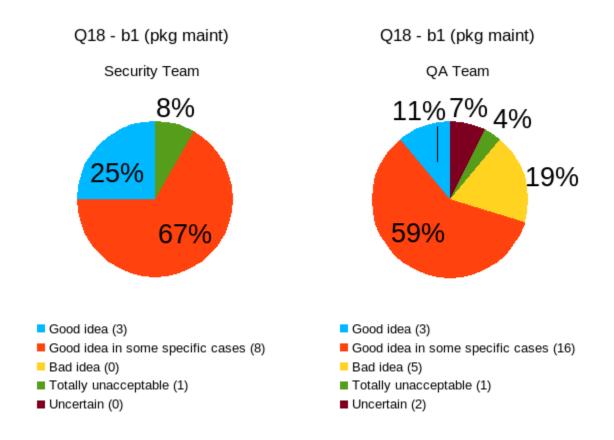


Only 20% (44 respondents) considered paying for package maintenance a good idea without further qualification, while 51% (114 respondents) considered it a good idea in some specific cases. Comparatively few considered this a bad idea (13%, or 28 respondents), totally unacceptable (6%, or 14 respondents), or were uncertain (11%, or 24 respondents). In general, this indicates that using Debian money to pay for package maintenance has relatively broad support, though it may be necessary to perform further work concerning the "specific cases" to determine which would be supported and which would not be supported by the Debian community.

As concerns functional roles, 209 of the 224 respondents chose "I'm maintaining packages," representing 93% of respondents. When considering only those 209 responses, the results were nearly identical to the overall result, with 51% choosing "good idea" and the other selections being within 1% of the overall. This result subset is not represented in a separate chart.

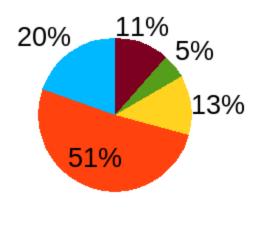
The maintenance of packages in Debian, especially on a distribution-wide scale, is of

particular interest to several teams within Debian. Packages are a central focus item for the Release Team, the Security Team, and the QA Team. There are also packaging teams with large numbers of packages under their responsibility, or with highly complex packages that require a great deal of effort to maintain. As a result, it is useful to see how respondents specifically affiliated with those teams answered this item.



# Q18 - b1 (pkg maint)

One or more packaging teams



- Good idea (34)
- Good idea in some specific cases (89)
- Bad idea (22)
- Totally unacceptable (9)
- Uncertain (20)

For members of the Security Team, the support was stronger still, with 25% (3 out of 12 respondents) choosing the response "Good idea" and a further 67% (8 out of 12) choosing "Good idea in some specific cases". The "QA Team" affiliation had 27 responses and the "One (or more) packaging teams" affiliation had 174 responses. It is not entirely unexpected that as the number of responses in a subset approaches the total number of survey responses (the survey had 224 total responses) the subset distribution approaches the overall distribution. In that way, neither the distribution of "QA Team" responses nor of "One (or more) packaging teams" responses provides any unique insight.

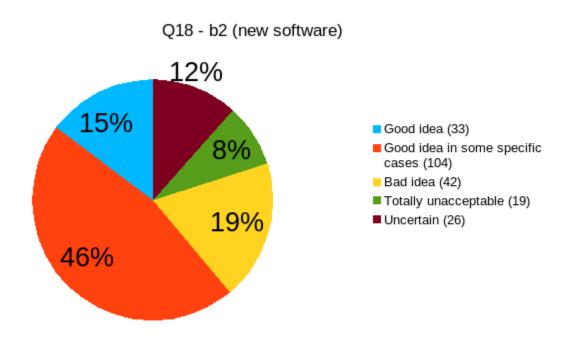
The number of respondents affiliated with the Release Team is small, 6 in all, and drawing conclusions from such a small sample is difficult. Suffice it to say that the Release Team's sentiment toward [b1] was overwhelmingly positive. One final note regarding the analysis based on team affiliation is that the DSA Team responses (of which there were 5) represent an extreme outlier. Their responses expressed overwhelmingly negative sentiment toward [b1].

#### PACKAGING OF NEW SOFTWARE

Respondents were asked to consider statement [b2] next, "Paying for the initial packaging of software new to Debian." While there is an amazing array of software

already packaged for Debian, the Free Software community continues to produce new software at an ever increasing pace and the widespread adoption of Debian means that software packaged for Debian is able to reach a broad audience. This is desirable for upstream software developers, as it makes their software accessible to more users, and it is desirable for Debian, as it makes the distribution more useful to a wider spectrum of users. However, as more and more software packages are introduced to Debian the distribution and the project must scale.

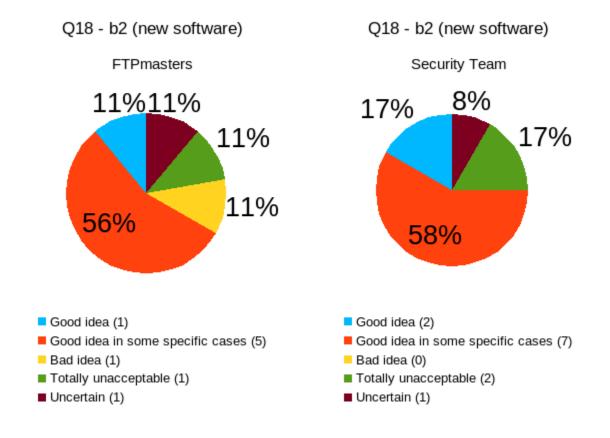
That said, paying for packaging of new software has a bit less support than maintenance of already packaged software [b1], with 15% (33 respondents) considering it a good idea and 46% (104 respondents) considering it a good idea in some specific circumstances. As with [b1], further work is needed to identify the specific cases where paying for this type of work might be supported.



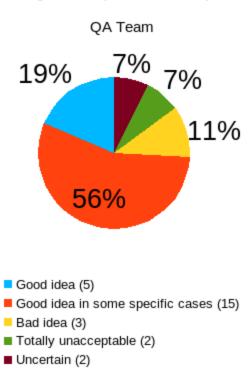
More than one fourth considered paying for the packaging of new software to be a bad idea (19%, or 42 respondents) or totally unacceptable (8%, or 19 respondents) and 12% (26 respondents) were uncertain. The lower relative level of support for [b2] as compared to [b1] could be a result of the amount of orphaned software in Debian. That is, it could be the case that members of the Debian community would rather see effort devoted to existing software in Debian that is not currently well-maintained instead of continuing to add new software that requires maintenance effort that could instead be directed elsewhere.

As concerns functional roles, 209 of the 224 respondents chose "I'm maintaining packages," representing 93% of respondents. Of those 209 responses, the results were essentially identical to the overall result, with selections being within 1% of the overall. This result subset is not represented in a separate chart.

The introduction of new software to Debian also impacts some specific teams more than others, so it is worth considering some of those effects in this analysis. The charts below show how members of the Release Team, FTPmasters, Security Team, and QA Team responded to [b2].







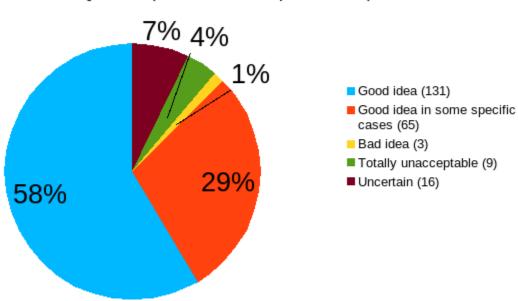
New software that enters Debian eventually comes under the purview of the Release Team as the packages enter the testing distribution and any release critical (RC) bugs affecting the software become part of the key metrics the release managers use to support decisions concerning the release. As noted in the last section, only 6 survey responses were affiliated with the Release Team, but in this case there seems to be a discernible insight. The sentiment of Release Team members split, but with an overall negative view of paying to have new software packaged for inclusion in Debian.

Conversely, respondents affiliated with FTPmasters, the Security Team, and the QA Team had an overall positive view of idea [b2], with positive and negative responses in proportions very similar to the overall survey population. The DSA Team responses again constitute an extreme outlier, with their responses indicating an overwhelmingly negative sentiment. Further work to gain insight into the DSA Team sentiment may prove valuable.

### INFRASTRUCTURE IMPROVEMENTS

The next statement that the survey presented was tagged [b3], "Paying for development of new features/improvements for Debian-specific infrastructure (e.g. bugs.debian.org, tracker.debian.org, dak, etc)." This idea had the highest level of support of all of the

statements presented in the eighteenth question, with 58% (131 respondents) considering it a good idea without further qualification and 29% (65 respondents) considering it a good idea in specific cases. Only 1% (3 respondents) considered it a bad idea, 4% (9 respondents) considered it totally unacceptable, and 7% (16 respondents) were uncertain.

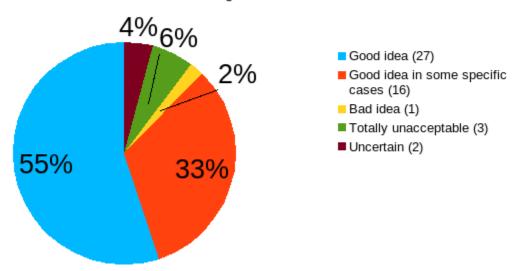


Q18 - b3 (infrastructure improvements)

The responses to this statement suggest that paying for Debian-specific infrastructure improvements has a very high likelihood of being uncontroversial and supported by the overwhelming majority of the Debian community. The survey allowed respondents to choose a functional role of "I'm maintaining a service" and it is useful to see how those who claimed that role viewed this idea, as shown in the chart below.

Q18 - b3 (infrastructure improvements)



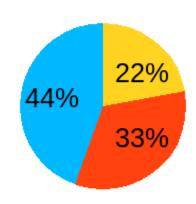


There were 49 respondents, or 22%, of the total 224 who identified with this functional role. Their responses concerning [b3] were very closely aligned with the overall results. There were 55% (27 respondents) choosing "good idea", 33% (16 respondents) choosing "good idea in some specific cases", 2% (1 respondent) choosing "bad idea", 6% (3 respondents) choosing "totally unacceptable", and 4% (2 respondents) choosing "uncertain".

It is also useful to consider the distribution of responses for certain team affiliations. While all Debian contributors use Debian infrastructure and are impacted by the quality of service, some teams rely much more heavily on Debian infrastructure to perform many of their tasks. The Release Team and the DSA Team are both highly dependent on infrastructure in order to accomplish core functions. As a result of the small number of responses for those teams, separate charts are not presented for their responses. Their responses were largely positive, though each had at least one "Totally unacceptable" response. The charts below show how members of the FTPmasters, Security Team, LTS Team, and QA Team responded to [b3].

Q18 - b3 (infra improvements)

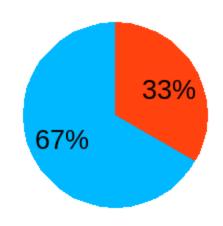
#### **FTPmasters**



- Good idea (4)
- Good idea in some specific cases (3)
- Bad idea (2)
- Totally unacceptable (0)
- Uncertain (0)

Q18 - b3 (infra improvements)

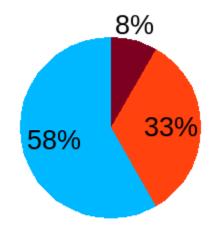
LTS Team



- Good idea (6)
- Good idea in some specific cases (3)
- Bad idea (0)
- Totally unacceptable (0)
- Uncertain (0)

Q18 - b3 (infra improvements)

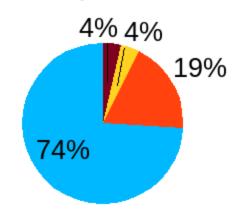
# Security Team



- Good idea (7)
- Good idea in some specific cases (4)
- Bad idea (0)
- Totally unacceptable (0)
- Uncertain (1)

Q18 - b3 (infra improvements)

QA Team



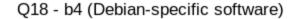
- Good idea (20)
- Good idea in some specific cases (5)
- Bad idea (1)
- Totally unacceptable (0)
- Uncertain (1)

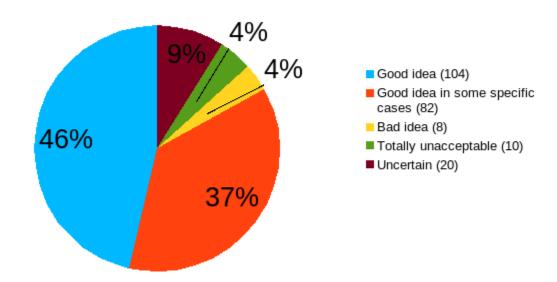
One thing which immediately stands out from viewing these charts is that members of the FTPmasters were more likely than members of the other teams and than the overall survey population to have a negative view of [b3] (recall that the Release Team and DSA Team also had meaningful negative sentiment). It is important to note that each of these teams are made up of a small number of people (as represented in the survey) and so 1 or 2 responses are enough to substantially alter the distribution of responses. The response distributions of the Security Team, LTS Team, and QA Team were roughly in line with the overall response distribution, though the LTS Team and QA Team were both slightly more positive with 67% (6 responses) and 74% (20 responses) responding "good idea" without further qualification.

A follow-up survey might be useful in determining what specific infrastructure improvements are likely to provide the greatest benefit and what risks members of the Release Team, the FTPmasters, and the DSA Team perceive in this idea.

#### DEVELOPMENT OF DEBIAN-SPECIFIC SOFTWARE

Next, respondents were asked to consider idea [b4], "Paying development of new features/improvements to Debian specific software (e.g. dpkg, apt, debhelper, lintian, etc)." This differs from [b3] in that it is not limited to Debian infrastructure, rather including all Debian-specific software: some of which may power Debian infrastructure uniquely, some of which may be used by Debian in a non-infrastructure capacity, some of which can be part of the packaging toolchain, and some of which acts as core components for the distribution itself.



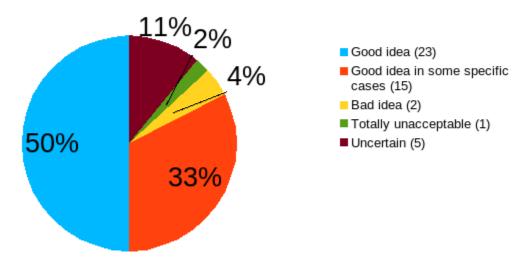


The overall distribution of positive/negative responses aligned quite closely with the responses to [b3], with a bit of a difference in the distribution of respondents choosing "good idea" and those choosing "good idea in some specific cases". In the overall distribution 46% (104 respondents) chose "good idea", 37% (82 respondents) chose "good idea in some specific cases", 4% (8 respondents) chose "bad idea", 4% (10 respondents) chose "totally unacceptable", and 9% (20 respondents) chose "uncertain".

The survey allowed respondents to claim a functional role of "I maintain Debian-specific software", which a total of 46 of the 224 survey respondents (21%) selected. From that subset there were 50% (23 respondents) choosing "good idea", 33% (15 respondents) choosing "good idea in some specific cases", 4% (2 respondents) choosing "bad idea", 2% (1 respondent) choosing "totally unacceptable", and 11% (5 respondents) choosing "uncertain". These responses represent a marginally more positive and also marginally less negative sentiment toward [b4] as compared with the overall survey population. The distribution of the responses of maintainers of Debian-specific software is represented in the below chart.

Q18 - b4 (Debian-specific software)

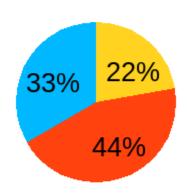
"I maintain Debian-specific software"



Because of the similarities between [b3] and [b4] it is useful to examine the same team affiliation distribution subsets as in the last section: Release Team, FTPmasters, DSA Team, Security Team, LTS Team, and QA Team. As before, the Release Team and DSA Team responses are not presented visually; their responses indicated a less enthusiastic sentiment toward [b4] than that of the overall survey population. The responses of the other teams are shown in the following charts.

Q18 - b4 (Debian software)

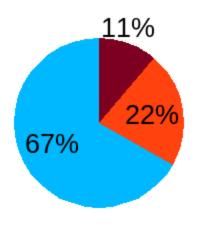
#### **FTPmasters**



- Good idea (3)
- Good idea in some specific cases (4)
- Bad idea (2)
- Totally unacceptable (0)
- Uncertain (0)

Q18 - b4 (Debian software)

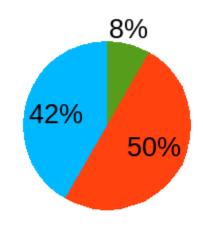
LTS Team



- Good idea (6)
- Good idea in some specific cases (2)
- Bad idea (0)
- Totally unacceptable (0)
- Uncertain (1)

Q18 - b4 (Debian software)

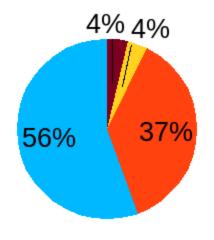
# Security Team



- Good idea (5)
- Good idea in some specific cases (6)
- Bad idea (0)
- Totally unacceptable (1)
- Uncertain (0)

Q18 - b4 (Debian software)

QA Team



- Good idea (15)
- Good idea in some specific cases (10)
- Bad idea (1)
- Totally unacceptable (0)
- Uncertain (1)

As with [b3], members of the FTPmasters were more likely than members of the other teams and than the overall survey population to have a negative view of [b4]. While the small size of the teams mean that even 1 or 2 responses can produce a considerable variation, it is still worth noting and considering that members of the FTPmasters (as well as the Release Team and the DSA Team, whose responses are not displayed in chart form) likely have good reasons for their negative sentiment toward this idea. Follow-up work to determine more precisely and concretely what those reasons are is likely to be beneficial.

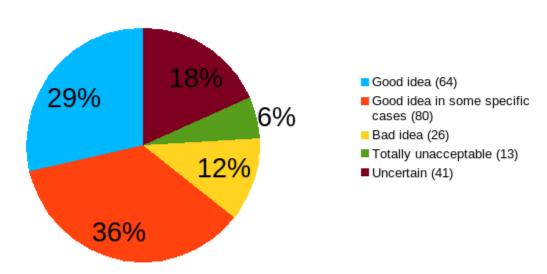
Though not as positive as the overall distribution of responses, the sentiment of the Security Team was still overwhelmingly positive, with 42% (5 of 12 respondents) choosing "good idea", 50% (6 of 12 respondents) choosing "good idea in some specific cases", and only 8% (1 of 12 respondents) choosing "totally unacceptable". As with the responses to [b3], members of the LTS Team had a very positive view of [b4], with 67% (6 of 9 respondents) choosing "good idea", 22% (2 of 9 respondents) choosing "good idea in some specific cases", and only 11% (1 of 9 respondents) choosing "uncertain". The responses of the QA Team were very closely aligned with the overall responses.

All of this would suggest that, as with [b3], there is a great deal of support for paying Debian contributors to work on Debian-specific software. Given the sentiments of some of the teams, however, additional work to identify specific Debian software components would be beneficial. There may be a preference for software that forms part of the packaging toolchain (e.g., in order to support packaging policy and procedure improvements, such as the ability to upload a package by pushing a signed Git tag or to help implement a default packaging workflow, which were two of the top-rated ideas presented in Q13) or there may be a preference for user-focused improvement of core OS components. These and other details would likely need to be determined to maximize the benefit of efforts in this area.

## DEVELOPMENT OF NEW TOOLS, WORKFLOWS, SERVICES

Respondents were also asked to consider idea [b5], "Paying development of new tools to experiment new workflows or new services." This idea had a majority of responses which were positive toward it, as shown in the chart below.



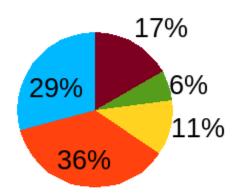


The 65% of positive responses included 29% (64 responses) "good idea" and 36% (80 responses) "good idea in some specific cases", while the remainder were 12% (26 responses) "bad idea", 6% (13 responses) "totally unacceptable", and 18% (41 responses) "uncertain".

If implemented, this idea has the potential to impact multiple groups within Debian. On the one hand, many could benefit from the development of tooling for experimenting with new workflows and services, and from the new workflows and services that may be developed as a result. On the other hand, the effort to develop the new tools represents a resource which must be committed to the effort and some contributors may perceive this as a poor trade-off. The following charts represent the response distributions associated with three of the functional roles likely to be impacted by this idea.

# Q18 - b5 (new services)

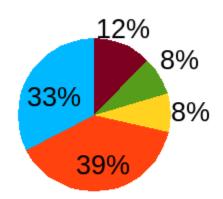
"I'm maintaining packages"



- Good idea (61)
- Good idea in some specific cases (76)
- Bad idea (24)
- Totally unacceptable (13)
- Uncertain (35)

# Q18 - b5 (new services)

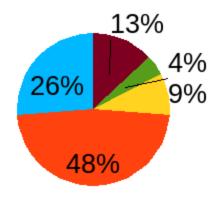
"I'm maintaining a service"



- Good idea (16)
- Good idea in some specific cases (19)
- Bad idea (4)
- Totally unacceptable (4)
- Uncertain (6)

Q18 - b5 (new services)

"I maintain Deb-specific software"



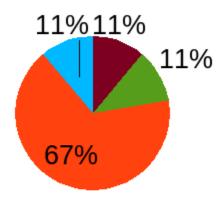
- Good idea (12)
- Good idea in some specific cases (22)
- Bad idea (4)
- Totally unacceptable (2)
- Uncertain (6)

The first thing to note is that each subset of responses has a tendency to be as positive or more positive than the overall result (where "positive" is the combination of "good idea" and "good idea in some specific cases" responses). Among respondents who maintain packages, 209 of 224 respondents (93% of the survey population), 29% (61 respondents) chose "good idea", 36% (76 respondents) chose "good idea in some specific cases", 11% (24 respondents) chose "bad idea", 6% (13 respondents) chose "totally unacceptable", and 17% (35 respondents) chose "uncertain". This subset of results essentially reflects the overall result. Among respondents who maintain a service, 49 of 224 respondents (22% of the survey population), 33% (16 respondents) chose "good idea", 39% (19 respondents) chose "good idea in some specific cases", 8% (4 respondents) chose "bad idea", a further 8% (4 respondents) chose "totally unacceptable", and a final 12% (6 respondents) chose "uncertain". This represents a marginally more positive view toward [b5] than those maintaining packages and also than the overall result. Among respondents who maintain Debian-specific software, 46 of 224 respondents (21% of the survey population), 26% (12 respondents) chose "good idea", 48% (22 respondents) chose "good idea in some specific cases", 9% (4 respondents) chose "bad idea", 4% (2 respondents) chose "totally unacceptable", and 13% (6 respondents) chose "uncertain". This represents a more optimistic attitude toward [b5] compared to the overall result, though more cautious because a higher percentage of responses went toward "good idea in some specific cases".

Turning now to team affiliation, the responses of the Release Team, FTPmasters, Security Team, and LTS Team are summarized in the charts below.

Q18 - b5 (new services)

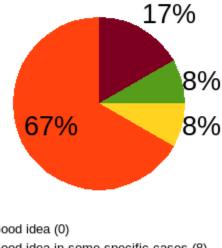
#### **FTPmasters**



- Good idea (1)
- Good idea in some specific cases (6)
- Bad idea (0)
- Totally unacceptable (1)
- Uncertain (1)

# Q18 - b5 (new services)

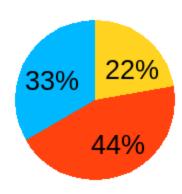
# Security Team



- Good idea (0)
- Good idea in some specific cases (8)
- Bad idea (1)
- Totally unacceptable (1)
- Uncertain (2)

Q18 - b5 (new services)

## LTS Team



- Good idea (3)
- Good idea in some specific cases (4)
- Bad idea (2)
- Totally unacceptable (0)
- Uncertain (0)

The Release Team members expressed a sentiment that is not very far from the overall distribution. While the percentages for "good idea" and "good idea in some specific cases" were lower than in the overall distribution and the percentages for "bad idea" and "totally unacceptable" were higher, that seems likely to be a result of the distribution comprising only 6 responses (resulting in each response representing approximately 17% of the whole). Despite the differences, this distribution seems to indicate that the Release Team sentiment is in line with the overall sentiment. However, the other teams appear to have different sentiments concerning [b5].

The FTPmaster sentiment appears to be best described as "more positive than the overall sentiment, but cautiously optimistic". Their responses were 11% (1 response) choosing "good idea" (compared with 29% in the overall distribution), 67% (6 responses) choosing "good idea in some specific cases" (compared with 36% in the overall distribution), 0% (no responses) choosing "bad idea" (compared with 12% in the overall distribution), 11% (1 response) choosing "totally unacceptable" (compared with 6% in the overall distribution), and 11% (1 response) choosing "uncertain" (compared with 18% in the overall distribution). The Security Team was yet more cautious than the FTPmasters in terms of positive sentiment. Their responses were 0% (no responses) choosing "good idea", 67% (8 responses) choosing "good idea in some specific cases", 8% (1 response) choosing "bad idea", 8% (1 response) choosing "totally unacceptable", and 17% (2 responses) choosing "uncertain".

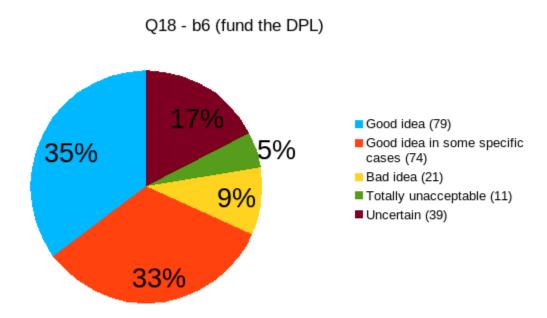
The LTS Team, on the other hand, was more optimistic than the general sentiment. Their responses included 33% (3 responses) of "good idea", 44% (4 responses) of "good idea in some specific cases", 22% (2 responses) of "bad idea", and no responses of either "totally unacceptable" or "uncertain". Additionally, it is worth noting that as in some of the previous sections, the responses of the DSA Team constitute an extreme outlier. Their responses were 60% (3 responses) "good idea in some specific cases" and 40% (2 responses) "totally unacceptable". The responses of those affiliated with "One (or more) packaging teams" were all within 1% of the overall distribution.

It seems like [b5] has generally very positive support, but given the variation in the level of support and the vague nature of the idea as presented, further study to identify specific candidate workflows and candidate services would be useful. A list of candidate workflows and services could be used in a follow-up survey to prioritize efforts.

## FUND THE DPL

The next idea, [b6], shifts the focus to the role of the DPL, "Use Debian funds to help the

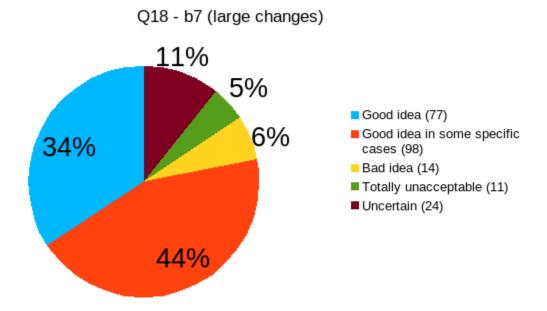
Debian Project Leader (DPL) role in some way." The phrasing of the idea implies that funds could be used for direct payments to the incumbent DPL, or alternatively to pay for support staff or services that could relieve the DPL of some of the burden of the role. The chart below shows the responses to this idea.



The overall sentiment is very positive toward this idea, with 35% (79 respondents) choosing "good idea", 33% (74 respondents) choosing "good idea in some specific cases", 9% (21 respondents) choosing "bad idea", 5% (11 respondents) choosing "totally unacceptable", and 17% (39 respondents) choosing "uncertain". Given the nature of the DPL role it does not seem especially useful to examine subsets in detail as in the previous sections.

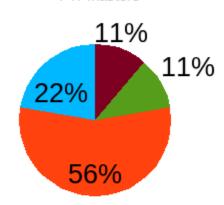
#### LARGE CHANGES

The next idea which the survey presented to participants was [b7], "Pay Debian contributors to complete large scale changes in a reasonable time frame." The idea as presented did not further define the changes (either by describing the scale or examples of changes) or the timeframe. However, two possible examples of changes that might come under the scale and timeframe criteria as "large" are the ongoing transition to merged-/usr and the transition to systemd several years ago. These examples were not presented in the survey but are offered here to help give context to the analysis. The chart below presents the responses to [b7].



The sentiment concerning this idea is overwhelmingly positive, making it the idea with the second-highest level of positive sentiment. The responses were 34% (77 respondents) choosing "good idea", 44% (98 respondents) choosing "good idea in specific cases", 6% (14 respondents) choosing "bad idea", 5% (11 respondents) choosing "totally unacceptable", and 11% (24 respondents) choosing "uncertain". It makes sense with this idea to examine the responses for some of the various teams, as depicted in the following charts.

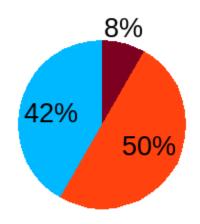
# Q18 - b7 (large changes) FTPmasters



- Good idea (2)
- Good idea in some specific cases (5)
- Bad idea (0)
- Totally unacceptable (1)
- Uncertain (1)

# Q18 - b7 (large changes)

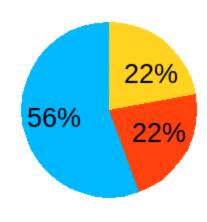
# Security Team



- Good idea (5)
- Good idea in some specific cases (6)
- Bad idea (0)
- Totally unacceptable (0)
- Uncertain (1)

Q18 - b7 (large changes)

LTS Team



- Good idea (5)
- Good idea in some specific cases (2)
- Bad idea (2)
- Totally unacceptable (0)
- Uncertain (0)

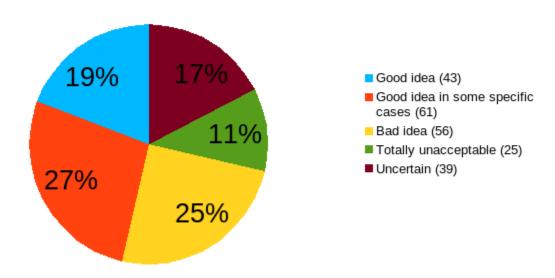
The responses of the Release Team were generally positive, representing more cautious optimism than the overall responses (the Release Team responses are not shown in chart form). The responses of the FTPmasters and the Security Team align reasonably well with the overall responses. Members of the LTS Team were considerably more positive among those expressing a positive view, with 56% (5 responses) choosing "good idea" and 22% (2 responses) choosing "good idea in some specific cases", but they were also more negative among those expressing a negative opinion, with 22% (2 respondents) choosing "bad idea" and none choosing "totally unacceptable" or "uncertain".

There appears to be a generally very positive sentiment toward [b7], albeit with some apparent caution on the part of the members of the Release Team. However, the vague nature of the idea would make further work beneficial to define more specific instances of large scale changes that might be funded in this way.

#### SPECIALIST PORTERS

Debian has a reputation for supporting an exceptionally wide range of hardware architectures, including many less commonly used architectures. There are instances when various architectures are not able to meet the criteria for inclusion in an upcoming release and specific exceptional effort is required to make the architecture release ready. To that end, respondents were asked to respond to the idea [b8], "Pay specialist porters to support release architectures at risk of being dropped from Debian releases due to lack of porters."



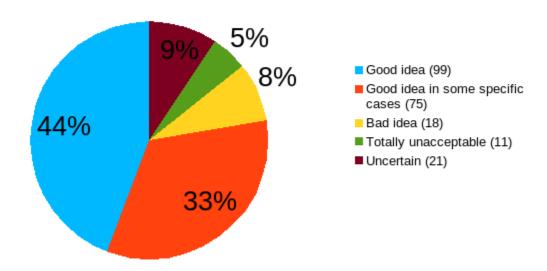


The responses to this idea had an overall positive sentiment, with 19% (43 respondents) choosing "good idea", 27% (61 respondents) choosing "good idea in some specific cases", 25% (56 respondents) choosing "bad idea", 11% (25 respondents) choosing "totally unacceptable", and 17% (39 respondents) choosing "uncertain". While the sentiment was positive overall, it was not majority positive (the positive responses totalled 46% and the negative 36%, with 17% "uncertain"). None of the Release Team, FTPmasters, or Security Team response distributions had majority positive sentiment (individual charts for these are not shown). This suggests that while paying for specialist porters may find some support, it is not likely to be especially broad support.

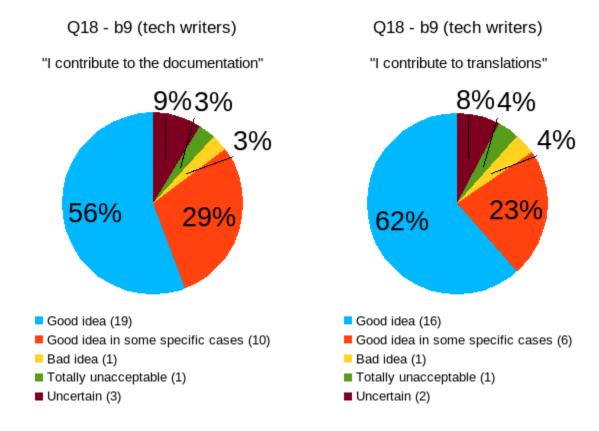
#### TECHNICAL WRITERS

The next idea which participants were asked to evaluate was [b9], "Paying technical writers to improve the documentation for new contributors." The responses to this idea were overwhelmingly positive. No doubt many participants remember their own experiences with becoming involved in Debian. As with many Free Software projects, and more broadly in the software development world, documentation is often not especially emphasized. The sentiment of the survey participants clearly indicates that it would be good to pay capable technical writers to help address that shortcoming. The chart below summarizes the responses.

Q18 - b9 (tech writers)



More than three fourths of the responses were positive, with 44% (99 respondents) choosing "good idea" and 33% (75 respondents) choosing "good idea in some specific cases", and the remaining one fourth spread among 8% (18 respondents) choosing "bad idea", 5% (11 respondents) choosing "totally unacceptable", and 9% (21 respondents) choosing "uncertain". Two functional roles seem most likely to be impacted by [b9], whether benefiting from the suggested work or being involved in its completion: contributors to the documentation, and contributors to translations. The subsets of their responses are presented in the following charts.



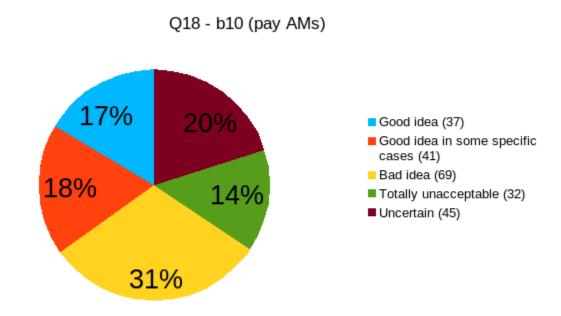
While the overall sentiment toward [b9] was overwhelmingly positive, looking at the two subsets shows that among documentation contributors and translation contributors the sentiment was yet more positive than the overall result. Documentation contributors represented 15% (34 of 224) of survey respondents, with 56% (19 respondents) choosing "good idea", 29% (10 respondents) choosing "good idea in some specific cases", 3% (1 respondent) choosing "bad idea", 3% (1 respondent) choosing "totally unacceptable", and 9% (3 respondents) choosing "uncertainty". The sentiment of translation contributors, 12% (26 of 224) of survey respondents, was even more positive, with 62% (16 respondents) choosing "good idea", 23% (6 respondents) choosing "good idea in some specific cases", 4% (1 respondent) choosing "bad idea", 4% (1 respondent) choosing "totally unacceptable", and 8% (2 respondents) choosing "uncertain". These results suggest that those contributors who are closest to the technical documentation find this idea the most compelling.

Most of the response subsets by team affiliation had very similar distributions as the overall result, with two exceptions. The FTPmasters and LTS Team both expressed 100% positive sentiment toward this idea, with all of their responses being either "good idea" or "good idea in some specific cases". Separate charts are not presented for these

subsets.

#### PAY APPLICATION MANAGERS

When respondents were asked to consider paying Application Managers (AMs), the response was mixed. The idea was stated [b10], "Pay Application Managers to ensure we deal with new contributors in a timely fashion." The chart below shows how the responses tallied.



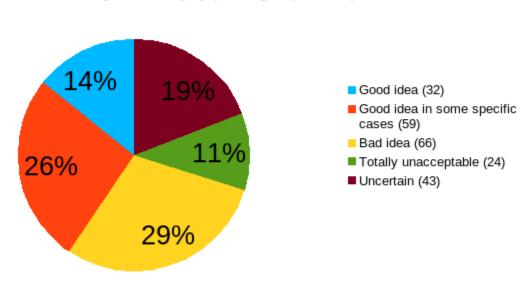
The first thing to note is that the responses had a predominantly negative sentiment toward the idea. The just over one third positive responses were 17% (37 respondents) choosing "good idea" and 18% (41 respondents) choosing "good idea in some specific circumstances", while the nearly half negative responses were 31% (69 respondents) choosing "bad idea" and 14% (32 respondents) choosing "totally unacceptable", and the remaining 20% (45 respondents) choosing "uncertain".

Given the topic, it is not clear that the subsets of responses based on team affiliation will give useful insight, so those will not be discussed here. The mixed sentiment regarding the idea of paying AMs may be a result of a number of factors. It may be that the majority of survey participants view the AM role as one that should not be "tainted" or perhaps influenced by financial motivations, that participants see the AM role functioning well as it is currently structured, or that most people have limited experience with the AM role and thus have an unwarranted positive or negative view. It is difficult

to determine the precise underlying reason as respondents were not able to select individual roles or team affiliations related to AM or the broader NM (new maintainer) process. Regardless, it is apparent that this is one area where funding would be difficult to apply in a way which a sufficient number of Debian project members find acceptable. A possible way to gain greater clarity would be to allow respondents to choose team affiliations or individual roles that indicate participation as an AM or in the NM process.

#### PAY PACKAGE SPONSORS

The next idea which respondents were asked to assess was [b11], "Pay Package Review/Sponsorship when a new contributor has been unable to find a sponsor to review his work." This idea represents a variation from [b10] in that [b10] specifically concerns the processing of individual applications for membership in Debian, while [b11] deals with sponsoring package uploads (which may or may not involve someone going through the NM process). Additionally, while the AM process is formal and there are designated people performing the function, the package sponsorship process is mostly informal and can in fact be performed by any Debian Developer.



Q18 - b11 (pay package sponsors)

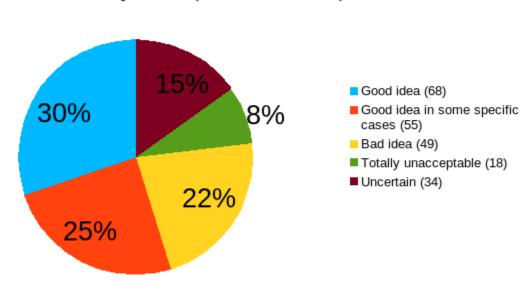
The responses to [b11] were evenly split. Positive responses made up 40% (including 14%, or 32 respondents, choosing "good idea" and 26%, or 59 respondents, choosing "good idea in some specific cases") and negative responses made up another 40% (with 29%, or 66 respondents, choosing "bad idea" and 11%, or 24 respondents, choosing "totally unacceptable"). The remaining 19%, or 43 respondents, were uncertain about

this idea (the total in this case sums to 99% as a result of rounding).

As with [b10], subdividing responses by team affiliation does not seem likely to give useful insight. Analysis of this idea would benefit from the ability to identify respondents as being involved in the package sponsorship activity or, as with [b10], being involved in the broader NM process.

#### **WEBSITE TRANSLATION**

The next idea was [b12], "Paying for debian website translation." Debian has long been recognized for its effort to be "the universal operating system." Part of this universality has to do with Debian's public-facing websites and content. Because of the wide variety of languages into which Debian's websites are translated and the pace at which content development happens, it is challenging to keep all of the translations equally up to date. Paying for translation of websites is a way to gain greater access to the specialized skills required for this type of work.

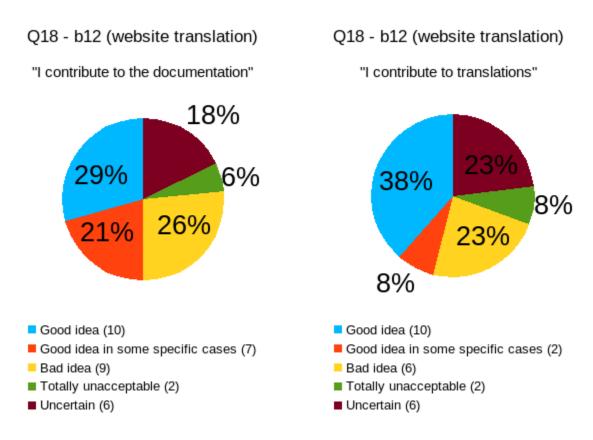


Q18 - b12 (website translation)

Just over half of respondents considered this a good idea, with 30% (68 respondents) choosing "good idea" and 25% (55 respondents) choosing "good idea in some specific cases". Negative views were expressed by just under one third, with 22% (49 respondents) choosing "bad idea" and 8% (18 respondents) choosing "totally unacceptable". The remainder, 15% (34 respondents), were "uncertain".

As with [b9], "Paying technical writers to improve the documentation for new

contributors," two functional roles, documentation contributors and translation contributors, seem most likely to be directly affected by [b12]. The charts below show the results of the responses from those two groups.



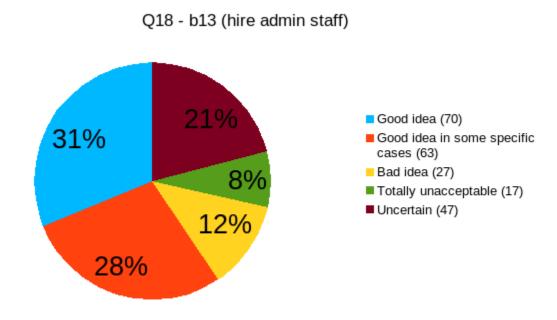
The responses of the documentation contributors were marginally less positive than the overall responses. In that group of 34, there were 29% (10 respondents) who chose "good idea", 21% (7 respondents) who chose "good idea in some specific cases", 26% (9 respondents) who chose "bad idea", 6% (2 respondents) who chose "totally unacceptable", and 18% (6 respondents) who chose "uncertain". Compared with the overall result, this was a marginally less positive sentient. The responses of the 26 translation contributors were 38% (10 respondents) choosing "good idea", 8% (2 respondents) choosing "good idea in some specific cases", 23% (6 respondents) choosing "bad idea", 8% (2 respondents) choosing "totally unacceptable", and 23% (6 respondents) choosing "uncertain". These responses are slightly more difficult to interpret. On the one hand the sentiment is less positive (46% positive among translation contributors compared to 55% positive overall), but on the other hand the percentage considering [b12] a good idea without further qualification was 38% for translation contributors compared to 30% overall. This indicates that among translation contributors those with a positive view were more likely to be enthusiastically positive.

There do not appear to be any specific teams which would be directly impacted by [b12], so subsets of responses based on team affiliation will not be examined here.

Though the support for this idea is far from overwhelming, it seems beneficial to consider further work that could make refinements with the goal of gaining broader support. This could help to make Debian website content available, more current, and more complete in a wider variety of languages.

## HIRE ADMIN STAFF

The last idea which was presented to respondents was [b13], "Hiring administrative and/or support staff (e.g. an operations manager)." This idea had majority positive support, with 31% (70 respondents) choosing "good idea", 28% (63 respondents) choosing "good idea in some specific cases", 12% (27 respondents) choosing "bad idea", 8% (17 respondents) choosing "totally unacceptable", and 21% (47 respondents) choosing "uncertain".



However, this seems inconsistent with the fourteenth question of the survey when respondents were asked to evaluate statement [a4], "I am fine with hiring contractors and/or staff who are not already Debian contributors to contribute to Debian." In that case, only 28% of respondents agreed with using Debian money to hire contractors

and/or staff, while 40% disagreed and 32% were uncertain<sup>20</sup>. This clearly suggests that survey respondents were either confused by the way the ideas were presented, or that the context of the presentation affected the responses. One possible explanation for the inconsistency is that when presented with a range of abstract ideas or types of people (as in the fourteenth question) hiring contractors seems out of alignment with the Debian project's fundamental character, but when presented with a group of concrete ideas or types of people (as in the eighteenth question) the phrasing "hire admin and/or support staff" is perceived differently (as opposed to "hiring contractors"). Further work is required to resolve this apparent discrepancy.

#### **OVERSIGHT OF FUNDING AND FUNDED IDEAS/OPPORTUNITIES**

The nineteenth question of the survey was, "Assuming that Debian contributors can request 'grants' to help them pursue some well-defined project, what body should be in charge of selecting/choosing the grants?" A further instruction was provided to help respondents understand how to approach the responses: "Please rank your answers like in a General Resolution, putting your preferred choice at the top and unacceptable choices below 'None of the above'." The possible answers were:

- The Debian Project Leader (DPL)
- The Debian technical committee
- The Debian developers at large (e.g., through some vote)
- A new team elected for that specific purpose
- A new team designated by the DPL
- The donors who contributed the money
- None of the above

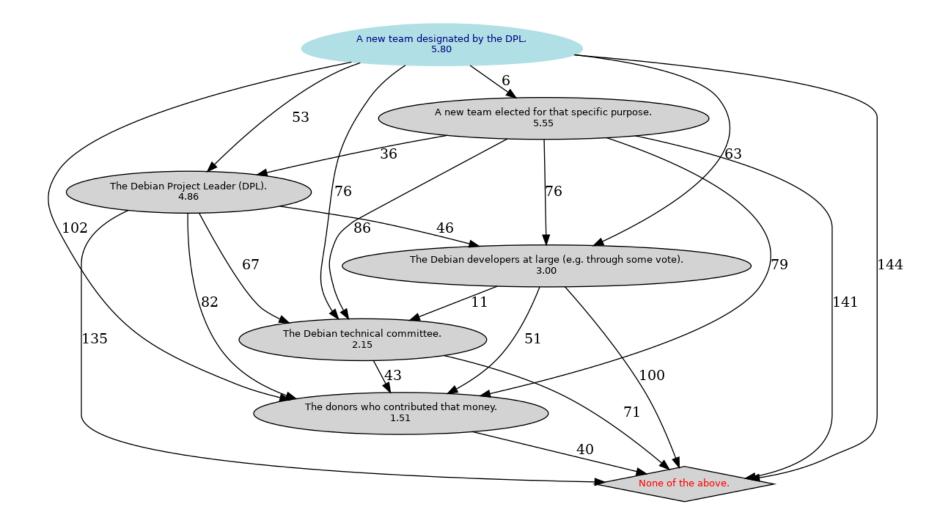
The process for analyzing the responses involved transforming the raw survey data into a form suitable for the pocket-devotee tool<sup>21</sup>. Processing through pocket-devotee revealed that the Schwartz set contained one winning option, "A new team designated by the DPL." The complete text output of pocket-devotee is included in an appendix<sup>22</sup>.

The graph below gives a visual depiction of the results.

<sup>&</sup>lt;sup>20</sup> See WHO CAN BE FUNDED (ANALYZED OVERALL)

<sup>21</sup> https://salsa.debian.org/debian/tech-ctte/-/blob/master/scripts/pocket-devotee

<sup>&</sup>lt;sup>22</sup> See APPENDIX: COMPLETE POCKET-DEVOTEE OUTPUT FOR O19



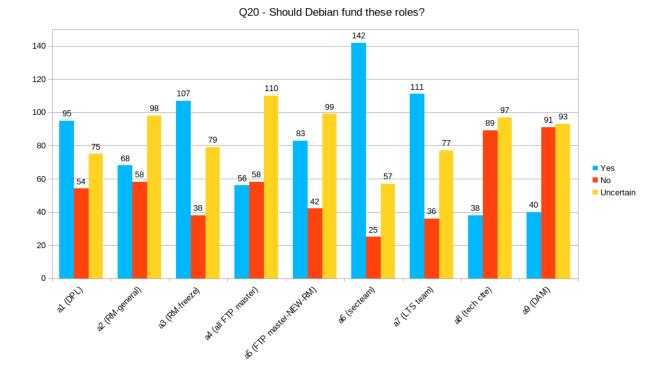
While "A new team designated by the DPL" was the winning option, it bested "A new team elected for that specific purpose" by only 6 votes. The victory margins of both "A new team designated by the DPL" and "A new team elected for that specific purpose" were substantial, the smallest being 36. This suggests that survey respondents found the idea of "a team" being charged with oversight of the grant process, were one to be implemented, to be the key element of an ideal solution. Having the DPL appointment option win indicates that the survey takers generally have confidence in the DPL as it pertains to appointing the right people to oversee something like this but that a sizable portion would favor electing that team instead. Either way, the other options (DPL, developers at large, technical committee, and the donors providing the funds) were all deemed less desirable for the oversight task.

#### **SPECIFIC ROLES TO FUND**

The twentieth question in the survey asked, "For each role listed below, please answer the following question: Should this Debian role include a stipend or otherwise be funded to allow more time to fulfill the obligations of the role?" The options then presented were:

- [a1] Debian Project Leader
- [a2] Debian Release Manager, in general
- [a3] Debian Release Manager, just during the freeze
- [a4] Every member of the archive team ("ftpmasters")
- [a5] Members of the archive team that process the NEW queue and RM requests
- [a6] Members of the Security team
- [a7] Members of the LTS team
- [a8] Members of the Technical Committee
- [a9] Members of the Debian Account Managers

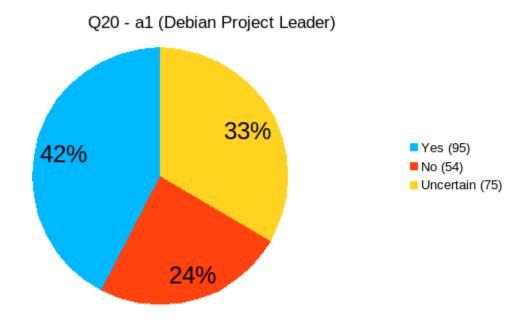
As with some of the earlier questions, respondents were asked to choose yes/no/uncertain for each of the options. The responses to each option will be considered in the following sections, along with some subsets of responses based on team affiliation. However, before looking at the responses to the individual options, it is useful to look at the responses in aggregate. The chart below shows that support for funding the various roles is mixed. Some roles have a high level of support for being funded, while respondents were more reluctant or uncertain when it came to funding of other roles.



The roles which have the highest level of support for being funded are security team and LTS team, while the lowest level of support is for funding the Debian Account Managers and the members of the Technical Committee. One possible explanation for the variation in support for funding the different roles may have to do with the perceived degree of influence over the fundamental character of the Debian project which is associated with the role. The work of the security team and the LTS team is predominantly technical in nature and generally conforms to established procedures, while the work of the Debian Account Managers and the members of the Technical Committee have more to do with foundational aspects of the Debian Project and at times can even influence the fundamental character of the project. The more detailed analysis that follows will delve further into possible explanations for the varying levels of support.

#### DEBIAN PROJECT LEADER

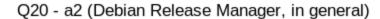
The first role which respondents were asked to consider funding was that of the Debian Project Leader, or DPL. Looking at the responses overall, 42% (95 respondents) support funding the DPL role, while the remainder either did not support funding the DPL role–24% (54 respondents)--or were uncertain–33% (75 respondents). These results indicate that while there is considerable support for funding the DPL role, it is not a clear majority.

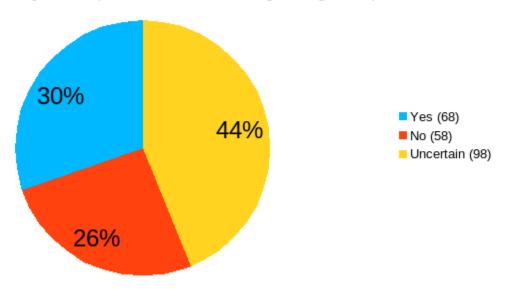


It appears that there is a marked difference in the sentiment between this question, which had a mixed response, and the "fund the DPL" option of Q18, which had an overwhelmingly positive response. One possible explanation is that in Q18 respondents were presented with a selection of ideas and the idea of "fund the DPL" is appealing, but the formulation of Q20 might have given respondents pause because when taken alongside the other roles to potentially fund the prospect of making the DPL essentially a paid employee of Debian might seem somehow inherently different.

#### DEBIAN RELEASE MANAGER, IN GENERAL

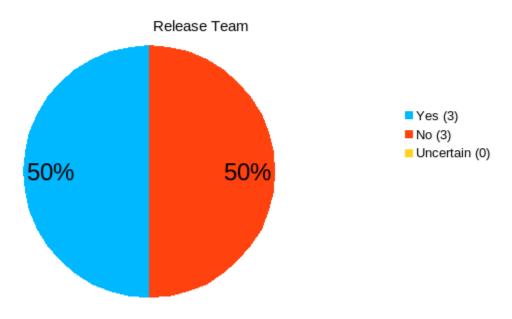
The next role which respondents were asked to consider funding was the Debian Release Manager, in general. That is to say, the idea is that the Debian Release Manager role would be funded in a general sense rather than limiting the funding to specific tasks (funding limited Release Manager tasks is presented as a separate option on the survey and discussed in the next section). The chart below shows that the general sentiment regarding general funding for the Debian Release Manager role was one of uncertainty.





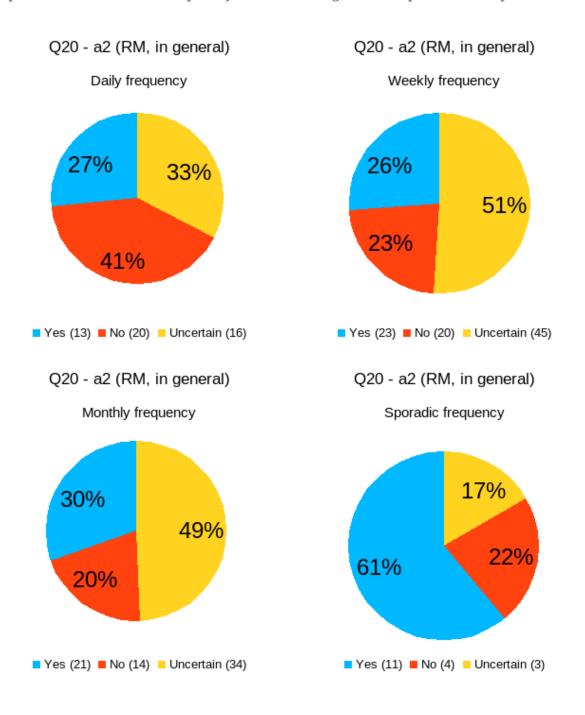
Only 30% (68 respondents) chose "yes", with 26% (58 respondents) choosing "no" and 44% (98 respondents) choosing "uncertain". While up to now we have not depicted Release Team responses in a separate chart, for this particular question it is necessary and useful to do so.

Q20 - a2 (Debian Release Manager, in general)



Among the members of the Release Team, there was no uncertainty concerning this idea. The responses were evenly split between "yes" and "no". This distribution of responses indicates that efforts to fund Debian Release Managers, in general, are likely to meet with significant resistance from within the Release Team itself.

In this instance it is also useful to examine the response distributions based on survey respondent contribution frequency. The following charts depict those responses.



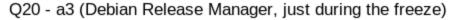
While respondents who reported a daily contribution frequency expressed about the same amount of positive sentiment as they overall responses they also expressed the most negativity toward this idea, with 27% (13 respondents) choosing "yes", 41% (20 respondents) choosing "no", and only 33% (16 respondents) choosing "uncertain". Essentially, daily contributors were much more certain about this idea and their certainty was that the Debian Release Managers, in general, should not be funded. The sentiments of less frequent contributors—weekly and monthly—were more in line with the overall responses.

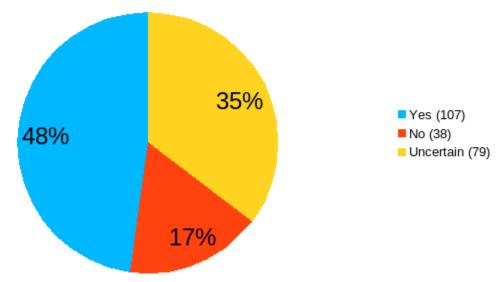
For weekly contributors 26% (23 respondents) chose "yes", 23% (20 respondents) chose "no", and 51% (25 respondents) chose "uncertain". For monthly contributors 30% (21 respondents) chose "yes", 20% (14 respondents) chose "no", and 49% (34 respondents) chose "uncertain". Perhaps most interesting of all is that sporadic, or "emeritus" contributors were overwhelmingly in favor of the idea, with 61% (11 respondents) choosing "yes", 22% (4 respondents) choosing "no", and only 17% (3 respondents) choosing "uncertain". It should be noted, however, that the size of the sporadic contributor group is considerably smaller than the others.

While the responses to this idea varied widely, depending on the subset being examined, two key subsets expressed substantial negative sentiment to this idea, the release managers themselves and contributors with the highest contribution frequency. The next idea, which is more limited in scope, had a significantly more positive sentiment in the responses.

#### DEBIAN RELEASE MANAGER, JUST DURING THE FREEZE

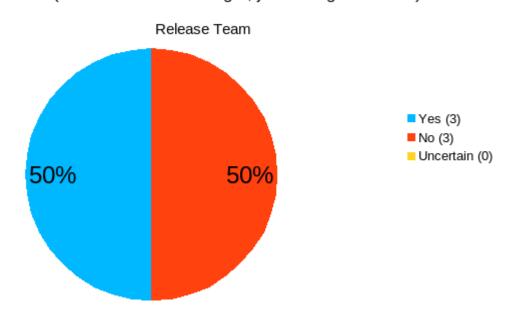
The next role which respondents were asked to consider funding was the Debian Release Manager, just during the freeze. As compared with the previous role, [a2], this one is more limited in scope. The overall sentiment was more positive for [a3] than it was for [a2] and in nearly every subset of responses the degree of positive sentiment was equal to or higher than it was for [a2]. The below chart summarizes the overall responses.





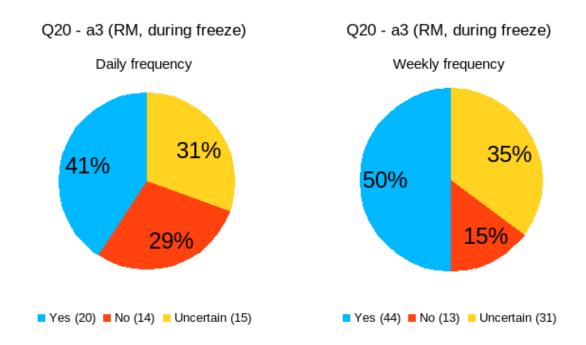
Out of all the responses 48% (107 responses) were "yes", 17% (38 responses) were "no", and 35% (79 responses) were "uncertain". This indicates that, on the whole, respondents are more comfortable with, and less uncertain about, funding the Debian Release Managers if the scope of the funding is limited to the freeze timeline or freeze activities. As with [a2], it is worth examining the responses of the Release Team members.

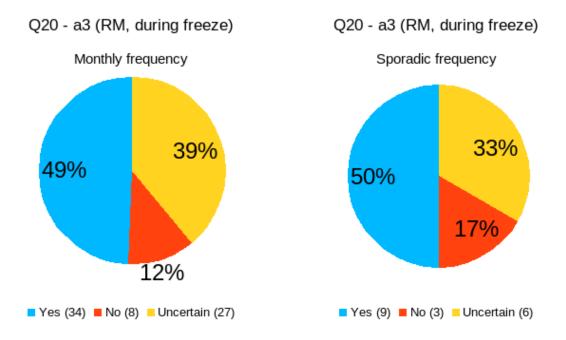
Q20 - a3 (Debian Release Manager, just during the freeze)



The responses of the members of the Release Team were identical to their responses for [a2]. A similar conclusion follows, that efforts to fund Debian Release Managers, just during the freeze, are likely to meet with significant resistance from within the Release Team itself. These results suggest that among the members of the Release Team there is no difference in the perception of funding the Debian Release Managers based on limiting the scope of the funding.

By considering contribution frequency, however, it is evident that contribution frequency does not have a particularly meaningful impact on how this idea is perceived. The charts below summarize these results.

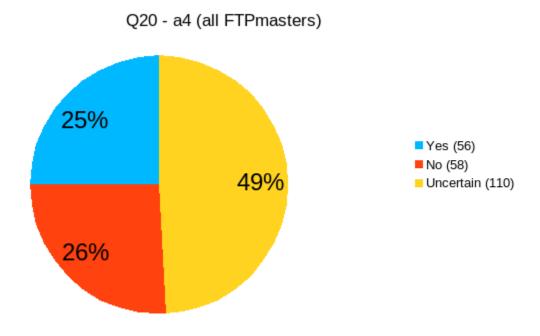




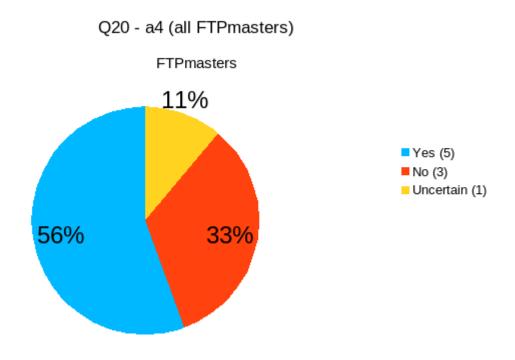
Daily contributors were slightly less positive and slightly more negative about [a3] than the overall survey population, but responses from all other categories of less frequent contributors were within a few percentage points of the overall responses. (Because of how close the subsets of responses were to the overall, they are not further detailed here.) Given the more positive overall perception of [a3] compared to [a2] it seems logical to conclude that any effort for funding the Debian Release Managers should begin with a limited scope. Additionally, a follow-up survey may help to identify other specific release manager tasks which are limited in scope and suitable to be addressed, with particular emphasis on what members of the Release Team themselves find acceptable.

# EVERY MEMBER OF THE ARCHIVE TEAM ("FTPMASTERS")

Survey respondents were asked to consider [a4], funding for every member of the archive team ("FTPmasters"). The overall sentiment toward this idea was mixed, representing a sentiment which is marginally less positive than the sentiment toward [a2]. It is possible that respondents tend to view the Release Manager and FTPmaster roles as very similar when it comes to their perception of how the introduction of funding could affect the integrity and functioning of the roles. The graph below shows the distribution of the responses.

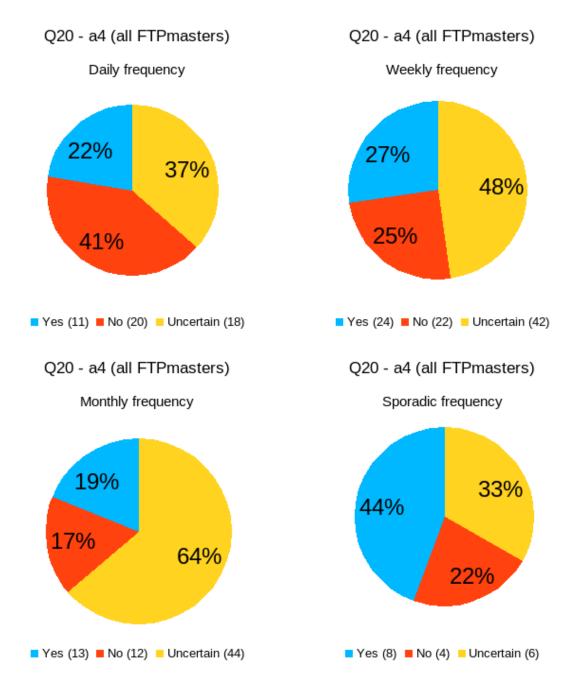


Nearly half of respondents, 49% (110 respondents) were "uncertain" regarding [a4], while the remainder were essentially evenly split between "yes" (25%, or 56 respondents) and "no" (26%, or 58 respondents). The below chart shows the subset of responses from those identifying as members of the FTPmasters.



Among the 9 members of the FTPmasters the sentiment toward [a4] was slightly more positive than it was for [a2] and [a3] and also slightly more positive than the sentiment of Release Managers was towards the idea of funding their own role.

As previously with [a2] and [a3], the following charts capture the response distributions for [a4] based on contribution frequency of the respondents.



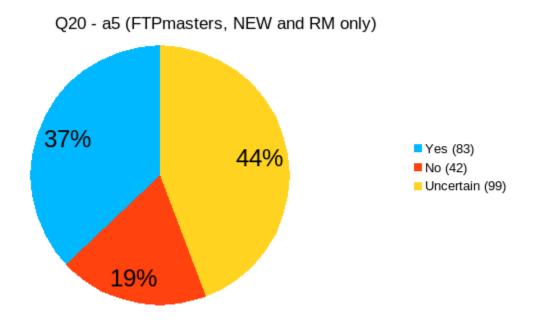
The responses were close to those of [a2], but with some degree of divergence as well.

Among contributors with a daily or nearly daily contribution frequency (49 in all), the "yes" responses were 22% (11 responses)–compared with 27% (13 responses) for [a2]–the "no" responses were 41% (20 responses)—identical for [a2]—and the "uncertain" responses were 37% (18 responses)–compared with 33% (16 responses) for [a2]. This represents a marginally less positive sentiment toward [a4] as compared to [a2] for this group of contributors. For weekly contributors (88 in all), the "yes" responses were 27% (24 responses)–compared with 26% (23 responses) for [a2]–the "no" responses were 25% (22 responses)–compared with 23% (20 responses) for [a2]–and the "uncertain" responses were 48% (42 responses)—compared with 51% (45 responses) for [a2]. This group had essentially the same response to both [a2] and [a4]. Among monthly contributors (69 in all), the "yes" responses were 19% (13 responses)–compared with 30% (21 responses) for [a2]–the "no" responses were 17% (12 responses)–compared with 20% (14 responses) for [a2]—and the "uncertain" responses were 64% (44 responses)—compared with 49% (34 responses) for [a2]. This group of contributors had a considerably less positive and more uncertain outlook towards [a4] as compared with [a2]. The 18 emeritus/sporadic contributors responded 44% (8 responses) "yes"-compared with 61% (11 responses) for [a2]–they responded 22% (4 responses) "no"–identical for [a2]–and they responded 33% (6 responses) "uncertain"—compared with 17% (3 responses) for [a2]. This group had the most significant shift in outlook, being a great deal less positive and more uncertain toward [a4] as compared to [a2].

These results suggest that while in the aggregate [a4] had very similar sentiment to that of [a2], there are clearly segments of the community which are considerably less inclined to view funding the all of the FTPmaster team members positively as compared to the idea of funding the Debian Release Managers, in general.

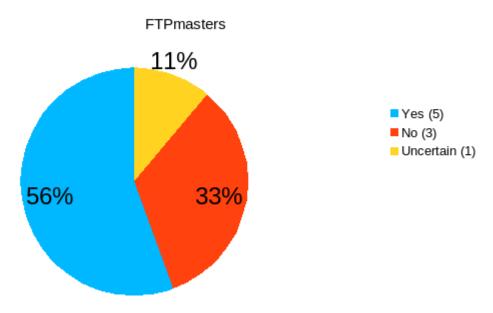
#### MEMBERS OF THE ARCHIVE TEAM THAT PROCESS THE NEW QUEUE AND RM REQUESTS

The next role which respondents were asked to consider was "Members of the archive team that process the NEW queue and RM requests". This idea, [a5], is similar to [a4] in that it includes a limitation of funding scope; this parallels the relationship between [a2] and [a3]. Just as how the freeze is widely known to be perhaps the most labor-intensive activity for the Debian Release Managers, the processing of packages in the NEW queue and RM (removal) requests are known to be especially laborious for members of the FTPmasters. The chart below presents the overall responses to [a5].

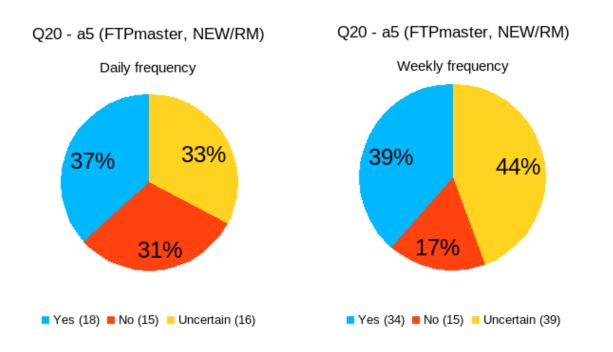


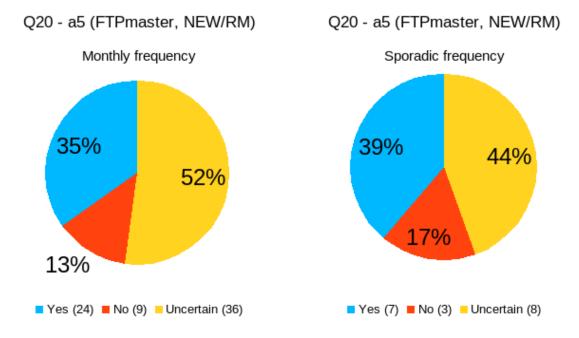
The responses were 37% (83 responses) "yes", 19% (42 responses) "no", and 44% (99 responses) "uncertain". As was the case when considering the sentiments towards [a3] as compared to [a2], the overall results show that there is greater positive sentiment towards [a5] as compared to [a4], though [a5] was not as well regarded as [a3]. Put differently, respondents felt more positive about scope-limited funding for the FTPmasters than they felt about funding without a scope limitation, but they were not as positive towards the idea as they were towards the idea of scope-limited funding for the Debian Release Managers. As with the previous section, the subset of responses for the members of the FTPmasters themselves is shown in the following chart.





The sentiment of the members of the FTPmasters was identical for both [a4] and [a5]. The following charts will allow an analysis of the responses based on contribution frequency.



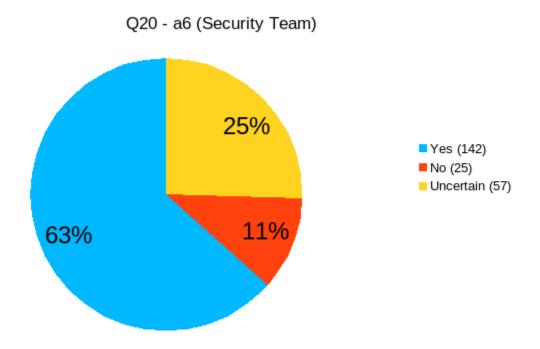


The responses to the previous item, [a4], indicated significant variation in sentiment based on contribution frequency. In contrast, there was very little variation in sentiment towards [a5] based on contribution frequency. The only significant variation was that among daily contributors there were considerably more "no" responses and correspondingly fewer "uncertain" responses. Apart from that, all of the responses were within just a few percentage points of the overall response distribution.

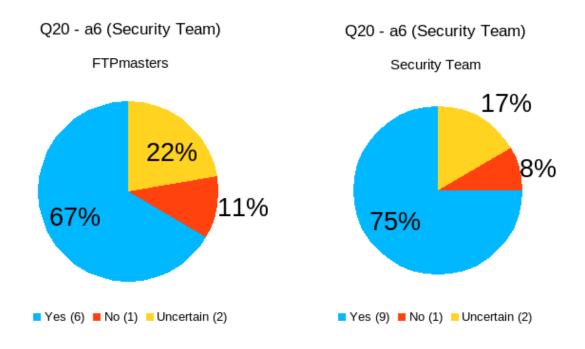
The results suggest that limiting the scope of funding for the FTPmasters is viewed more positively by the survey respondents than funding which is not scope-limited. Additionally, while there is little variation in the the subsets of responses to [a5] as compared with the subsets of responses to other similar ideas, [a2], [a3], and [a4], the overall support for [a5] is not especially strong, with only just over one third expressing positive sentiment. Further work may be needed to identify alternative scope limitations or funding approaches for the FTPmasters which might have broader support.

#### MEMBERS OF THE SECURITY TEAM

The next role for which respondents were asked to consider funding was the role of Members of the Security Team, identified as [a6] under this survey question. This role had, by a wide margin, the most positive support out of all of the roles which were presented for consideration. This role also had the lowest negative and uncertain sentiments of all. The subsequent chart represents the overall responses.



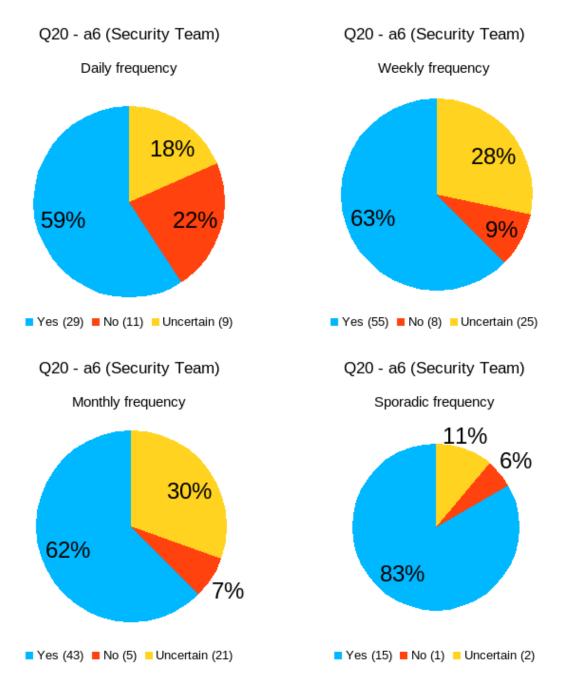
The responses were 63% (142 responses) "yes", 11% (25 responses) "no", and 25% (57 responses) "uncertain". As with the responses to the other presented roles, it is helpful to consider the distribution of responses based on certain team affiliations. The following charts depict the selected response subsets.





It is interesting to note first that responses from members of the Security Team and the LTS Team were considerably more positive than the overall distribution of responses. Among the members of the FTPmasters the responses were almost perfectly matched to the overall response distribution. Turning now to the responses of the Security Team members, they were 75% "yes" (9 responses), 8% "no" (1 response), and 17% "uncertain" (2 responses). This represents a somewhat more positive sentiment than the overall distribution, along with a corresponding reduction in "no" and "uncertain" responses. The responses of the LTS team members were very nearly unanimous, with 89% (8 responses) "yes" and only 11% (1 response) "uncertain". The sentiment of the LTS team members makes sense after considering that there is a very close collaboration between the LTS team and Security Team and that the workload of the Security Team frequently exceeds their capacity. Furthermore, funding the Security Team to allow handling a larger workload could be very beneficial to the LTS team (e.g., fewer issues deferred during the stable lifecycle, more in depth analysis during triage, etc.). That said, the current structure of the Security Team is release-centric rather than package-centric. Another possible approach to improving the functioning of the Security Team could be to adopt a more package-centric structure. Implementing a significant change like, as opposed to scaling the existing structure, would require considerable forethought and involvement of key stakeholders.

The following charts show the subsets of responses based on contributor frequency, which were well aligned with the overall responses.



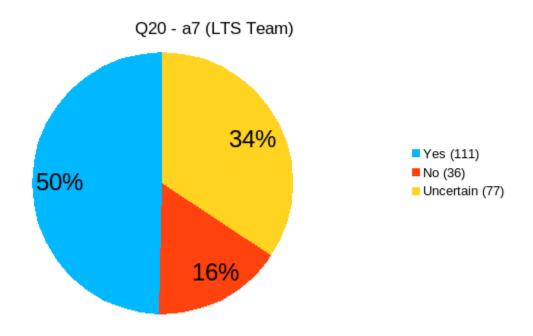
Contributors with a daily or nearly-daily contribution frequency had a marginally less positive view than that represented by the overall responses, but with considerably more negativity and less uncertainty. Their responses were 59% (29 responses) "yes", 22% (11 responses) "no", and 18% (9 responses) "uncertain". Among weekly contributors were 63% "yes" (55 responses), 9% "no" (8 responses), and 28% "uncertain" (25 responses). Monthly contributors had a sentiment nearly identical to that of the weekly contributors, with 62% "yes" (43 responses), 7% "no" (5 responses), and 30% "uncertain" (21

responses). The responses of the weekly and monthly contributors were very close to the overall responses. Sporadic contributors were much more positively inclined toward [a6] as compared with the overall responses, with 83% "yes" (15 responses), 6% "no" (1 response), and 11% "uncertain" (2 responses). The trend based on contribution frequency is that as contribution frequency decreases positivity toward the idea of funding members of the Security Team increases.

These results suggest that there is exceptionally broad support for funding members of the Security Team, but that among certain teams support may be less enthusiastic<sup>23</sup>. It could be beneficial to perform some additional follow-up work to determine if there are specific concerns that might be taken into consideration in any Security Team funding effort.

#### MEMBERS OF THE LTS TEAM

When survey respondents were asked to consider funding members of the LTS Team, [a7], the result was largely positive but with some wide variations among specific subsets of responses. The overall responses are shown in this chart.

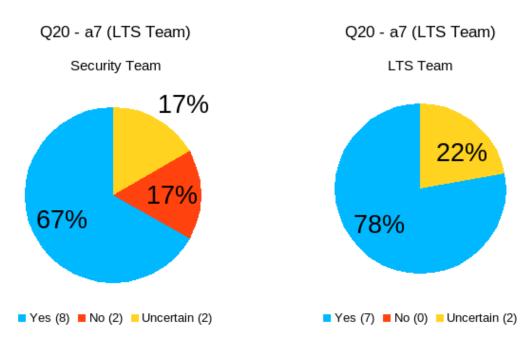


Of all of the roles which were presented for consideration, the LTS Team role had the

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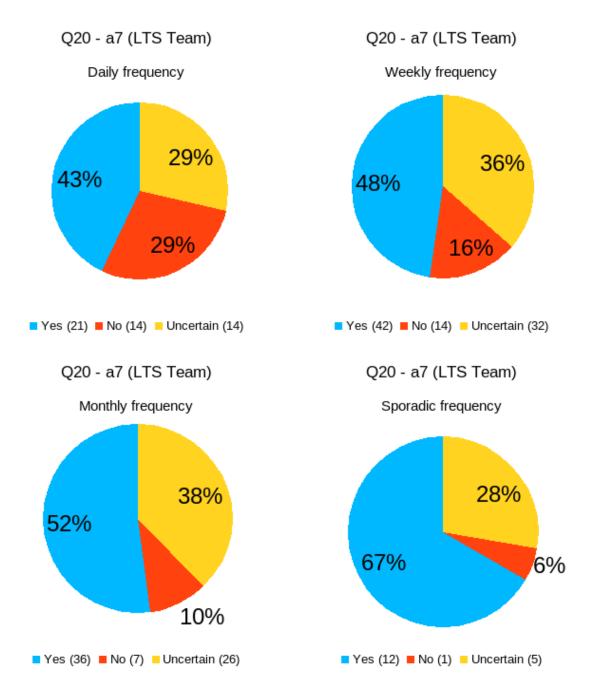
<sup>&</sup>lt;sup>23</sup> This is based on analysis of the responses of the teams with small numbers of survey respondents claiming affiliation; because of the small team populations the analyses were not depicted graphically in this section.

second highest degree of positive sentiment, after the Security Team. There were 50% "yes" (111 responses), 16% "no" (36 responses), and 34% "uncertain" (77 responses). This seems to indicate fairly strong support overall for the idea of funding the LTS Team role. As with some of the previous analysis, it is helpful to view the sentiment of members of the team itself when it comes to funding for that team. The following chart shows the subset of results for survey respondents affiliated with the LTS Team.



Members of both the Security Team and the LTS Team members themselves had a substantially more positive sentiment towards [a7] then the overall survey population. Given the close collaboration between the Security Team and the LTS Team, it is not surprising that the Security Team members are supportive of the idea of funding the LTS Team role. It is logical that the LTS Team members would be exceptionally positive toward the idea of funding the LTS Team role, seeing as they both view the work as valuable and have a vested interest in its continued funding. However, it is also worth noting that the Security Team members were more enthusiastic about funding the LTS Team role than they were about their own role, while the LTS Team members were more positive about funding the Security Team role than about their own role. It would seem that in both cases, the Security Team and the LTS Team, each sees the other as having the greater need for funding.

Turning now to the subsets of responses based on contribution frequency, consider the following charts.



As with the responses to some of the previous roles, the general trend of positive sentiment increasing and negative sentiment decreasing as contribution frequency declines is seen in the results for [a7]. Among daily contributors there were 43% "yes" (21 responses) and 29% (14 responses) each "no" and "uncertain". For the weekly contributors, the distribution was 48% "yes" (42 responses), 16% "no" (14 responses), and 36% "uncertain" (32 responses). The sentiments of both the daily and weekly contributors were less positive than overall, with the daily contributors being

significantly more negative (with a corresponding reduction in uncertainty) and the weekly contributors balancing their decrease in positive sentiment with a corresponding increase in uncertainty.

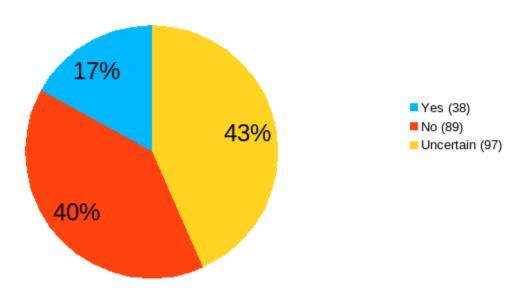
Monthly and sporadic contributors were more positive than overall. Monthly contributors had 52% "yes" (36 responses), 10% "no" (7 responses), and 38% "uncertain" (26 responses). Sporadic contributors had an overwhelmingly positive sentiment towards [a7], with 67% "yes" (12 responses), only 6% "no" (1 response), and 28% "uncertain" (5 responses).

While the survey indicated fairly broad support for the idea of funding members of the LTS Team, it is important to note that the members of the LTS Team are already almost entirely funded by Freexian. The phrasing of the question in the survey could be taken to mean that the Debian project itself would fund the members of the LTS Team, whether in whole or in part and whether in lieu of or in conjunction with Freexian. Additionally, given that the LTS Team is already funded, it is not immediately clear whether the yes/no/uncertain responses were intended by the respondents to indicate approval/disapproval/uncertainty toward the current funding arrangement, or to a hypothetical future funding arrangement (which could be the same or different from the current). It goes without saying that the LTS effort has been successful and well received in general. However, if the intent is to propose that Debian as a project provide funding for the LTS Team, then further work would help determine the way in which the project members feel such funding should be sourced and applied.

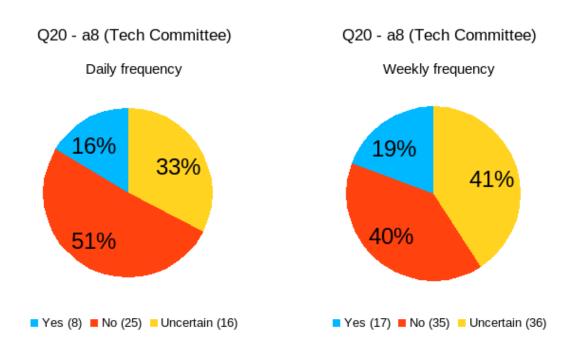
## MEMBERS OF THE TECHNICAL COMMITTEE

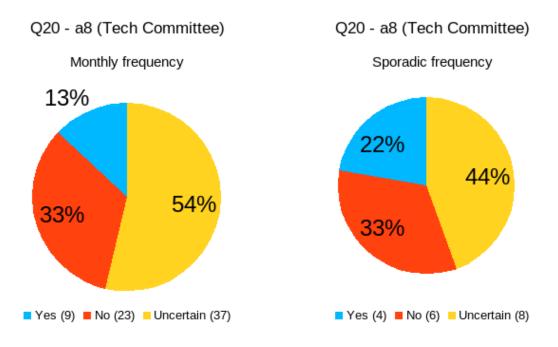
As noted in the introductory section, the idea of funding for [a8], the members of the Technical Committee, had a sentiment that was among the most negatively expressed. It is possible that the nature of the Technical Committee role means that project members view the idea of funding the role as a compromise in the fundamental character of the role. The chart below represents the overall responses.





While the responses were not majority negative, the overall degree of positive sentiment was the lowest of all the roles which respondents were asked to consider. The responses included 17% "yes" (38 responses), 40% "no" (89 responses), and 43% "uncertain" (97 responses). The following charts represent the responses based on contribution frequency.





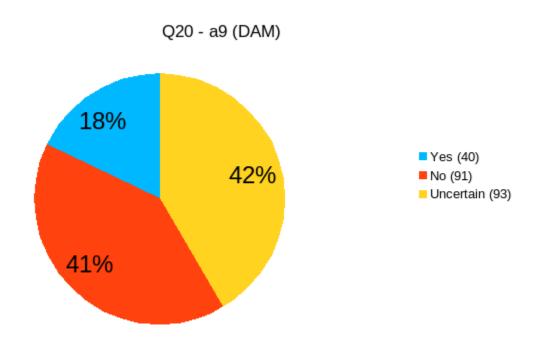
It appears that contribution frequency did not correlate with a significant variation in positive sentiment; all of the different subsets had proportions of "yes" responses that were within a very small margin of the overall. However, there was wider variation regarding "no" and "uncertain" responses. Among daily contributors the responses were majority negative—more negative than the overall results—16% "yes" (8 responses), 51% "no" (25 responses), and 33% "uncertain" (16 responses). For weekly contributors the results were very nearly in line with the overall results, including 19% "yes" (17 responses), 40% "no" (35 responses), and 41% "uncertain" (36 responses). Monthly contributors were not as strongly negative but rather more uncertain, with 13% "yes" (9 responses), 33% "no" (23 responses), and 54% "uncertain" (37 responses). The sentiment of sporadic contributors was more positive than that of the overall population, but only marginally so, with 22% "yes" (4 responses), 33% "no" (6 responses), and 44% "uncertain" (8 responses).

While there was some amount of variation in the subsets of responses based on team affiliation (the variations based on team affiliation were not specifically discussed) and contribution frequency, there was not a single subset with more positive responses than negative or uncertain responses. The message from the project is clear: funding the members of the Technical Committee is not at all viewed positively and is likely to provoke very strong negative reactions across the project. One area of further work which might prove beneficial would be to interview current and past members of the Technical Committee to gain insight into their perception of how funding would affect

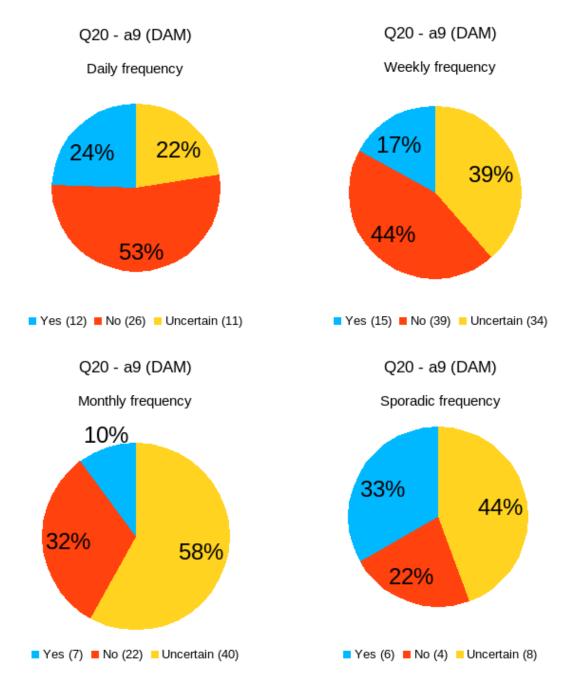
the Technical Committee member role.

## MEMBERS OF THE DEBIAN ACCOUNT MANAGERS

When presented with [a9], "Members of the Debian Account Managers," as a role to consider funding, respondents expressed the most negative sentiment of all the roles given for consideration. The chart that follows summarizes the responses.



While the responses were not majority negative, the overall degree of negative sentiment was the highest of all the roles which respondents were asked to consider. The responses included 18% "yes" (40 responses), 41% "no" (91 responses), and 42% "uncertain" (93 responses). The following charts represent the responses based on contribution frequency.



There was more variation in sentiment toward [a9] based on contribution frequency of respondents as compared with sentiment toward [a8]. The positive sentiment was higher than the overall for daily and sporadic contributors, while weekly and monthly contributors had lower positive sentiment than the overall. As contribution frequency declined (from daily towards sporadic), negative sentiment decreased and uncertainty increased. However, even with these variations, it seems unlikely that the idea of funding the Debian Account Manager role is likely to find any significant level of positive

support within the project. The DAM role is widely seen as wielding the greatest power within the Debian project, particularly the power to decide who is and who is not a Debian Developer or other type of project member. With this in mind, the responses to [a9] seem to align with the overall sentiment towards the idea of funding the members of the Technical Committee (which has a similarly viewed level of authority within the project), and also aligns with the more general idea that the very core of the Debian project should remain largely uninfluenced by money.

### **OTHER ROLES TO FUND**

The twenty-first survey question asked, "Are there other roles that should be funded to allow more time to fulfill the obligations of the role?" The question was optional and presented a text entry area which respondents could fill in with a free-form response. Because the question was optional many respondents did not give an answer, though 58 (or 26% of the survey population) did give an answer of some sort. Because of the free-form nature of the responses, some answers mentioned a single role, some mentioned multiple roles, and yet others gave responses of an entirely different nature.

Among the roles which were mentioned in the responses were (roughly in descending order of frequency of occurrence):

- Members of the Debian System Administrators, including several specific highlights of Salsa administrators
- Press, Publicity, Social Media and Communications Teams
- Website maintenance
- List masters and mailing list moderators
- Community Team and Professional mediators
- Community Manager
- Maintainers of critical packages/software (e.g., GNOME, dpkg)
- Legal, tax, and bookkeeping support roles
- DevOps or Operations roles
- DPL-support personnel
- User support roles
- Package maintainers, in general
- Translators
- Customer-oriented roles (e.g., Blends, Cloud Team, etc)
- DebConf organizers and DebConf Video Team members
- Organizers of Debian meetings (e.g., BSPs, mini-DebConfs, etc)
- Instructors teaching Debian development

- Mentorship roles
- QA Team

The DSA role was mentioned far more than any other single role, more than 4 times as often as the next most frequently mentioned role. This perhaps indicates that members of the Debian project view the work of DSA, which is essentially a 24/7 operational support role, as particularly important and/or particularly in need of additional resources (whether to sustain the current level of support, to expand the team in order to reduce the workload on each member, or to increase the level of support).

Some respondents expressed negative sentiment via their comments, including concerns regarding funding of roles communicating the wrong incentives or even disincentivizing volunteers. There were also some comments which were not oriented towards funding specific roles. One comment in particular suggested additional funding for Salsa infrastructure and its CI components, as well as for hardware to support porting activities. Another comment suggested funding for DD travel to DebConf.

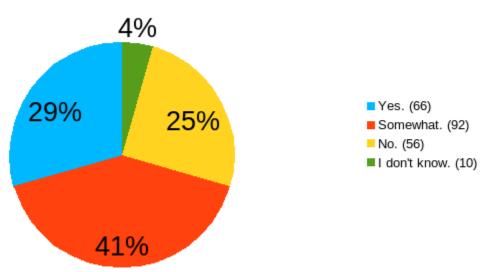
Because of the qualitative nature of the responses, it is difficult to form a particular conclusion from the responses to this question. However, it is clear that there are many other roles which have some level of importance to members of the Debian project and the wider Debian community and it is also clear that some respondents have reservations about the possibility of introducing funding to the Debian project dynamic. That said, one respondent did point out that even absent funding coming directly from the Debian project that money has already been influencing Debian team dynamics for many years as a result of the involvement of participants affiliated with particular commercial entities in core Debian teams. The issue of reservations associated with paying people for Debian work will be further explored in the next section.

# **IMPACTS OF FUNDING ON DEBIAN'S VOLUNTEER CULTURE**

The Debian project is in many ways different from most other similarly-sized projects or organizations in the Free Software and Open Source communities. As pointed out near the beginning of this document, the Debian project began as an all-volunteer effort and throughout its history has retained the volunteer spirit as an essential part of its character. As a result, it is worthwhile to consider how survey participants view the likely impact of funding to the volunteer culture of the Debian project. Two questions were asked of survey participants, one quantitative and the other qualitative. The following sections examine the responses to these questions.

## **OBSTACLES TO CONTINUED VOLUNTEER PARTICIPATION**

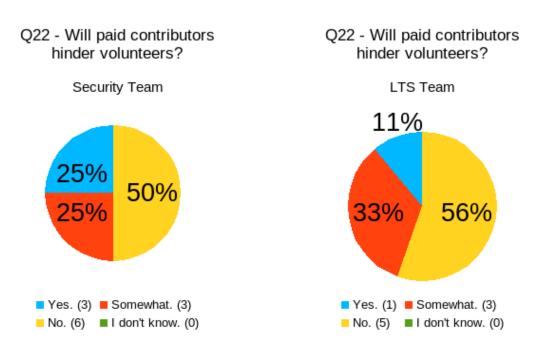
The twenty-second question in the survey asked participants, "Are you concerned that paid contributors could make it harder for volunteers to (continue to) participate in a team?" The question was required and all survey participants answered. The phrasing of the question is rather broad and might be considered ambiguous. It is likely that a more precisely worded question would have been much more verbose and, as a result, more cumbersome for survey participants. For instance, one possible ambiguous point is whether respondents were considering that the mere presence of paid contributors could make volunteer participation more difficult (e.g., because paid participation would have a monetary incentive attached to it while volunteer participation would not) or whether they considered that paid contributors might actively work to obstruct volunteer contributors in order to boost the potential for financially compensated work. While ambiguity of this sort is not possible to resolve in Q22, we will proceed to look at the responses and conclude what may be concluded. The qualitative responses to Q24 in the next section will provide some insight into the ways in which respondents see paid contributors as an obstacle.



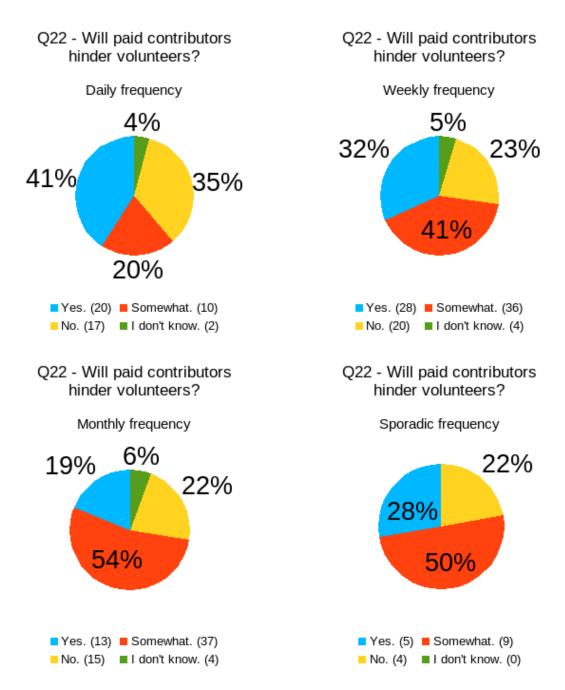
Q22 - Will paid contributors hinder volunteers?

Overall, the responses were mixed. The "yes" and "no" responses were somewhat close, with "yes" responses, 29% or 66 responses, (indicating a belief that paid contributors will somehow hinder volunteers) slightly higher than "no" responses, 25% or 56 responses. The answer with the highest tally was 92 responses of "somewhat", representing 41% of

the responses. Only 4%, or 10 responses, chose "I don't know." The responses based on team affiliations indicated that some of the smaller teams were more likely to answer this question with a "yes" than the overall survey population. Their responses are not further detailed here. However, two teams whose responses we are able to detail are the Security Team and the LTS. Their responses are shown in the following charts.



The members of the Security Team who responded to the survey had a more positive outlook on the impact of paid contributors than did the overall survey population, with half viewing the presence or involvement of paid contributors as not being a hindrance to volunteer participation. Their responses were 25%, or 3 responses, each for "yes" and "somewhat", and with 50%, or 6 responses, for "no". The sentiment of the LTS Team was more positive yet, with 11%, or 1 response, for "yes," 33%, or 3 responses, for "somewhat", and with 56%, or 5 responses, for "no". It may be that the Security Team and LTS Team, perhaps more than other teams, have positive experience with paid contributors (either themselves being paid contributors or somehow interacting with paid contributors). That type of positive experience could make them more likely to view interference between paid and volunteer contributors as less likely. Next we consider the responses based on contribution frequency of survey participants, as depicted in the following charts.



Very frequent contributors, those who contribute daily or nearly daily, have a divided opinion on the matter, with a higher proportion of "yes" and "no" responses and a lower proportion of "somewhat" responses, as compared to the overall responses. The responses of weekly contributors, however, matched the overall response distribution very closely. Monthly and sporadic (or emeritus) contributors had lower proportions of "yes" and "no" responses with a corresponding higher proportion of "somewhat" responses. It seems that as contribution frequency decreases that uncertainty regarding

the impact of paid contributors increases. What is perhaps the most interesting thing to note, however, is that regardless of contribution frequency the distribution of "yes" and "no" responses in each subset essentially remains balanced.

#### **CONCERNS REGARDING FUNDING IMPACTS**

The twenty-fourth question, like the twenty-first question, gave survey participants the opportunity to express their own thoughts regarding the impact of paid work on Debian. Respondents were told, "If you have reservations or concerns about paid work that is not included in the survey, please share them below." Because of the ability of respondents to make free-form comments in response to this prompt, there was a considerable breadth and depth of comments, despite the fact that only 74 respondents (33%) supplied comments. The remainder of this section attempts to effectively and concisely summarize the principal recurring themes among those comments.

At least one fourth of the responses given raised the issue of goal alignment between paid contributors and volunteer contributors. In general, the comments seemed to focus on some participants being paid and others not being paid rather than distinguishing between the same individual juggling two sets of priorities. Though, it seems clear that both cases present similar opportunities for misalignment of priorities. Several respondents who made comments along these lines also raised specific examples of this phenomenon in Debian history. One pointed out the Technical Committee vote on upstart and systemd, several highlighted the Dunc Tank initiative (which resulted in many difficult and tense mailing list discussions, along with various other negative impacts), and one pointed out that paid contributors have what amounts to an unfair advantage in terms of time and energy to follow and participate in contentious project discussions. One comment pointed out that a single entity could inject sufficient funding to effectively take control of the direction of the project, while another raised a very similar concern and suggested that entities providing funding should not be allowed a say in how the funds are applied or executed. Several concerns were also raised around the idea of taking care to preserve the most important core characteristic of the Debian project—its volunteer ethos—accompanied with varying suggestions for how to accomplish its preservation.

Another concern which was raised by several respondents was that of perverse incentives<sup>24</sup>. Formulations of the problem included terms like "perverse incentive," "self-imposed bottlenecks," and several other similar terms. One particular comment raised a related concern that it could be undesirable to utilize funding in order to

<sup>&</sup>lt;sup>24</sup> https://en.wikipedia.org/wiki/Perverse\_incentive

address work arising from "self-inflicted" policies (e.g., the NEW queue). Regardless of the formulation of the comment, the core concern is that the possibility of funding could cause those seeking funding to act in a way which maximizes income rather than in a way which minimizes friction, technical issues, etc (when those two goals are opposed to each other). Perverse incentives, being a form of unintended consequence, have been recognized as a problem in economic theory for centuries.

Additional complications were raised regarding the issue of fairness as it pertains to disparities in the cost of living in different parts of the world. There are a variety of ways in which this issue of fairness can be manifested. For example, paying a uniform worldwide rate means that contributors in lower cost parts of the world would receive a potentially unfair high rate while those in higher cost parts of the world would receive a potentially unfair low rate. There is also the issue of taxation, where paying a uniform rate provides a greater benefit to contributors residing in low tax jurisdictions.

Two additional related concerns which were raised by several different respondents include stratification, or differentiation, between paid and volunteer contributors and the distorting effects of funding. In the case of stratification, there are concerns that having a mix of paid and volunteer contributors will result in two separate "classes" of contributors which are viewed differently within the project, which may also result in envy on the part of those who are not being paid or may way otherwise deter volunteers from participating. One comment in this area pointed out that this sort of differentiation could be an advantage and suggested an approach that involved treating paid contributors as employees working under the supervision of volunteer contributors and without a say in the direction of the Debian project. Another comment raised a concern that funding of entire teams could produce a Balkanization effect within the project between funded teams and unfunded teams. In the case of the distorting effects of funding, the two main concerns were that paying for some things and not others would draw contributors away from the unfunded tasks and toward the funded tasks, and that a small number of paid contributors could displace a larger number of volunteer contributors. Contributors being drawn away from unfunded activities and toward funded activities assumes that the contributor pool is essentially fixed and that the effect of funding is effectively to reallocate contributors, which is certainly possible but which does not account for addition of new contributors. The displacement of volunteer contributors by paid contributors has to do with the ability of paid contributors to spend more time contributing and, presumably, to eclipse volunteer contributors who may have very limited time to contribute by comparison. These concerns have a degree of merit, and it is worth taking them into consideration as approaches for funding are

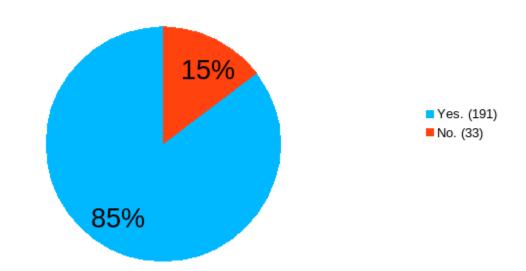
considered.

Numerous other comments and suggestions were made, ranging from raising concerns about the phrasing of individual survey questions, to making specific suggestions for how funding should be managed (e.g., directly through Debian, through third parties, etc), to encouragements to take prompt action and make adjustments as necessary (rather than trying to find a perfect solution from the start).

In summary, as is to be expected when soliciting comments from as large and diverse a group as the population of Debian Developers, there were numerous reservations and concerns expressed. The two which were brought up most frequently had to do with ensuring that Debian project goals and core volunteer ethos are not subverted by the participation of paid contributors. Any funding efforts should carefully consider these concerns and ensure that they are addressed appropriately.

## **PARTICIPATION IN FUTURE SURVEYS**

The twenty-fifth question, the very last in the survey, asked respondents, "Do you want to be included by default in future Debian-related surveys?" The responses are shown in the following chart.



Q25 - Participate in future Debian-related surveys?

The question was very simple. The results show that fully 85% of the respondents are

interested in participating in future Debian-related surveys. As there were several questions in this survey which seem to lend themselves to further investigation via a follow-up survey, the respondents who answered "yes" to this question would be a natural group with which to conduct such a follow-up survey.

## CONCLUSION

The questions in this survey spanned a wide range of topics related to participation in the Debian project and a variety of aspects related to how funding various roles or activities might serve to improve the project. There are certainly ideas and roles which have very broad support for being funded and others which do not. There are participants who are very enthusiastic about the idea of funding being used to improve Debian, and others who have concerns. The <u>ABSTRACT/EXECUTIVE SUMMARY</u> at the beginning of this document provides a summary of the findings and rather than repeat the summary here, the reader is directed to that section.

# **APPENDIX: COMPLETE POCKET-DEVOTEE OUTPUT FOR Q19**

```
Starting results calculation at Tue Oct 4 19:54:49 2022

Option A "The Debian Project Leader (DPL)."

Option B "The Debian technical committee."

Option C "The Debian developers at large (e.g. through some vote)."

Option D "A new team elected for that specific purpose."

Option E "A new team designated by the DPL."

Option F "The donors who contributed that money."
```

In the following table, tally[row x][col y] represents the votes that option x received over option y.

			Option Option							
		Α	В	С	D	Е	F	G		
		===	===	===	===	===	===	===		
Option	Α		134	127	85	76	142	170		
Option	В	67		93	57	64	119	133		

Option G "None of the above."

Option	C	81	104		63	72	126	150
Option	D	121	143	139		98	141	172
Option	Ε	129	140	135	104		153	174
Option	F	60	76	75	62	51		118
Option	G	35	62	50	31	30	78	

Looking at row 2, column 1, B received 67 votes over A

Looking at row 1, column 2, A received 134 votes over B.

```
Option A Reached quorum: 170 >= 2
Option B Reached quorum: 133 >= 2
Option C Reached quorum: 150 >= 2
Option D Reached quorum: 172 >= 2
Option E Reached quorum: 174 >= 2
Option F Reached quorum: 118 >= 2
```

```
      Option A passes Majority.
      4.857 (170/35) > 1

      Option B passes Majority.
      2.145 (133/62) > 1

      Option C passes Majority.
      3.000 (150/50) > 1

      Option D passes Majority.
      5.548 (172/31) > 1

      Option E passes Majority.
      5.800 (174/30) > 1

      Option F passes Majority.
      1.513 (118/78) > 1
```

```
Option A defeats Option B by ( 134 -
                                        67) =
                                                67 votes.
Option A defeats Option C by ( 127 -
                                        81) =
                                                46 votes.
Option D defeats Option A by ( 121 -
                                        85) =
                                                36 votes.
Option E defeats Option A by ( 129 -
                                        76) =
                                                53 votes.
Option A defeats Option F by ( 142 -
                                        60) =
                                                82 votes.
Option A defeats Option G by ( 170 -
                                        35) =
                                               135 votes.
Option C defeats Option B by ( 104 -
                                        93) =
                                                11 votes.
Option D defeats Option B by ( 143 -
                                        57) =
                                                86 votes.
Option E defeats Option B by ( 140 -
                                        64) =
                                                76 votes.
```

```
Option B defeats Option F by ( 119 -
                                76) =
                                      43 votes.
 Option B defeats Option G by ( 133 -
                                62) =
                                      71 votes.
 Option D defeats Option C by ( 139 -
                                63) =
                                      76 votes.
 Option E defeats Option C by ( 135 -
                                72) = 63 \text{ votes}.
 Option C defeats Option F by ( 126 -
                                75) = 51 \text{ votes}.
 Option C defeats Option G by ( 150 -
                                50) = 100 \text{ votes}.
 Option E defeats Option D by ( 104 -
                                98) = 6 \text{ votes}.
 Option D defeats Option F by ( 141 -
                                62) = 79 \text{ votes}.
 Option D defeats Option G by ( 172 -
                                31) = 141 \text{ votes}.
 Option E defeats Option F by ( 153 -
                                51) = 102 \text{ votes}.
 Option E defeats Option G by ( 174 -
                                30) = 144 \text{ votes}.
 Option F defeats Option G by ( 118 -
                                78) =
                                      40 votes.
The Schwartz Set contains:
   Option E "A new team designated by the DPL."
The winners are:
   Option E "A new team designated by the DPL."
```

# **APPENDIX: IDEAS AND SUGGESTIONS FOR FUTURE SURVEYS**

These are some suggestions for potential future or follow-up surveys.

- Ask about longevity in the project in addition to contribution frequency.
- Q6/Q9 follow-up: reformulate to allow specifying personal/professional by

percentage. For example, "What percentage of your Debian contributions are personal in nature? (Choose 100% for all personal and no professional contributions, and choose 0% for all professional and no personal contributions)". A similar formulation to represent the percentage of Debian work that is paid for Q9 (rather than a simple all/some/none breakdown) would also potentially be helpful.

- Q10 follow-up: is there a preference toward a traditional employment arrangement, a contract-based work model, or perhaps even a gig work model among those who desire to be paid for some or all of their contributions to Debian?
- Q12 follow-up: what sorts of changes would respondents need to make to support an increased level of involvement in Debian and would additional targeted assistance help improve outcomes of funding Debian work?
- Q14a4 and Q18b13: resolve the discrepancy between the two response distributions; in Q14a4 respondents seem to disapprove of hiring contractors, but in Q18b13 respondents seem to approve of hiring admin staff.
- Q18 follow-up: for ideas which had high response counts for "Good idea in certain specific cases", identify some specific cases which respondents consider a "good idea".
- Q18b5 follow-up: a list of candidate workflows and services could be used in a follow-up survey to prioritize efforts.
- Q20a3 follow-up: identify other specific release manager tasks which are limited in scope and suitable to be addressed, with particular emphasis on what members of the Release Team themselves find acceptable.
- Q20a5 follow-up: determine alternative scope limitations for funding of FTPmasters (the question suggested NEW/RM, but the response was mostly uncertain).
- Q20a6 follow-up: determine if there are specific concerns that might be taken into consideration in any Security Team funding effort.
- Q20a7 follow-up: if funding for LTS were to come directly from the Debian project itself, how would such funding be sourced and applied?
- Q20a8 follow-up: interview current and past members of the Technical Committee to gain insight into their perception of how funding would affect the Technical Committee member role.