

a project of the Nation of Makers Metrics of Impact (Data) Working Group.

For more information about Nation of Makers, please visit NationOfMakers.us.

You can read about additional findings and makerspace-related topics with more in-depth analysis of survey results from the Nation of Makers Metrics of Impact Working Group's blog, makethedata.org

If you use any graphics from this report, please cite: "Nation of Makers Annual Survey of Makerspaces Report, 2019" on [MakeTheData.org](http://makethedata.org) by the Nation of Makers Metrics of Impact Working Group.

2019 Survey of Makerspaces Report

About our Makerspaces

- Report Section 1
- Questions List:

https://github.com/IttyBittyArtist/NOMANNUALSURVEY/blob/master/2019/2019-Survey-Questions/2019_E_Survey_Questions.pdf

Leaders of Makerspaces

- Report Section 2
- Questions List:

https://github.com/IttyBittyArtist/NOMANNUALSURVEY/blob/master/2019/2019-Survey-Questions/2019_L_Survey_Questions.pdf

Makerspace Members

- Report Section 3
- Questions List:

https://github.com/IttyBittyArtist/NOMANNUALSURVEY/blob/master/2019/2019-Survey-Questions/2019_M_Survey_Questions.pdf

Survey of Makerspaces Collection Mechanism & Analysis Methods

- Report Section 4

Graphics and Charts Repository

- You will find useable graphics and tables for all years of the survey here:
<https://github.com/IttyBittyArtist/NOMANNUALSURVEY>

Version 1.0

Welcome to the beginning of a journey in better understanding who we, as a national community of makers, are.

In the middle of a time of great uncertainty, the value of maker groups is becoming even more apparent as many makerspaces and individuals are stepping up and solving problems related to PPE shortages. Makers are do-ers. We always step up - always volunteer - always find a way to overcome problems that our communities face. Craft, engineering, and creative problem solving has been invaluable in helping fill gaps in access and resources for protecting workers and other citizens from exposure to disease until traditional industry and bureaucracy is able to scale-up and meet demands.

The maker response is not at all surprising to makerspace leaders or members. We know the value and power of having tools, understanding how to use them, and leveraging collective knowledge to solve problems. That is the core of our mission. It is important to be able to tell these stories effectively, with supporting data, to others - the funders, policymakers, and the communities that our makerspaces serve. This is where mechanisms such as the Survey of Makerspaces and this annual report seek to provide value.

If we can measure our efforts and impact we can assess how much we have improved or changed over time. Similarly, investigating patterns from other groups or individuals can help us more quickly understand best practices and avoid pitfalls. Sustainability in carrying out the mission of empowerment through making requires that we are able to apply the things that we are learning.

The incredibly talented, diligent team of individuals who have worked on this survey have spent over a year working on improving and growing this edition of the survey and annual report. The study is intended to be longitudinal, and so the work of the team is ongoing. To date, this work has been an entirely volunteer effort and hundreds of hours have been accumulated on the project. All feedback provided throughout the year has been taken to heart, discussed in weekly meetings, and integrated where it makes sense. As the data team moves forward, please give us feedback on what you would like to learn from the information we have gathered at NOMCON, on Slack, or via the makethedata.org web site, and if you are as passionate about the data as we are, consider joining us in our working group.

I am constantly amazed at the level of work we are doing, and I am so proud of the Nation of Makers' Data Working Group and our entire Nation of Makers.

Love and radio buttons,

Jennifer Deafenbaugh

Nation of Makers Data Working Group Team Leader

Report Team: The Nation of Makers Metric of Impact Working Group, 2019 Edition



Survey Authoring:

Paul Bierkolo
Russ Browder
David Braun
Nan Braun
Jeanette Breton
Jennifer Deafenbaugh
Dorothy-Jones Davis
Ronald Williams

Data Cleaning:

Jeanette Breton
Katherine Cannistra
Jennifer Deafenbaugh
Liam O'Brien

Reporting and Analysis:

Jeanette Breton
Katherine Cannistra
Jennifer Deafenbaugh
Bradley O'Matthews
Ronald Williams

Thank-you to Open Works for supporting the 2019 Data Retreat (where the survey was authored) and to all of the makerspaces and individuals who have helped promote this effort.

Section 1

About our Makerspaces

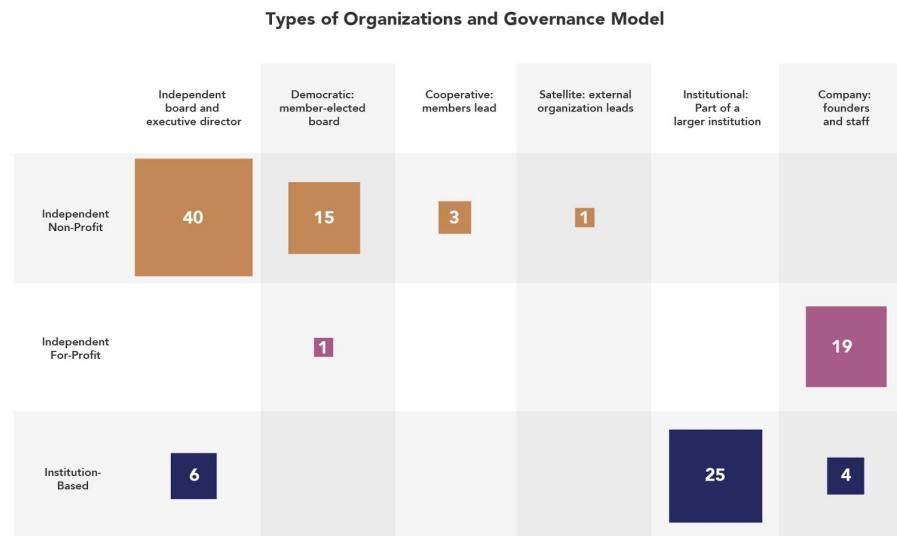
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1.1 - Types of Space and Governance Models

People create makerspaces for a wide variety of reasons, root them in different operational environments and turn to different models of governance to run them.

In 2019, makerspace operations could be grouped in three categories: **Institution-Based Spaces**: spaces within existing organizations, **Independent Non-Profit Spaces**: independent philanthropies, and **Independent For-Profit**: or standalone independent private spaces. Each type of space was run predominantly by a particular governance model.



Type of Organization vs Governance Model vs Membership Model

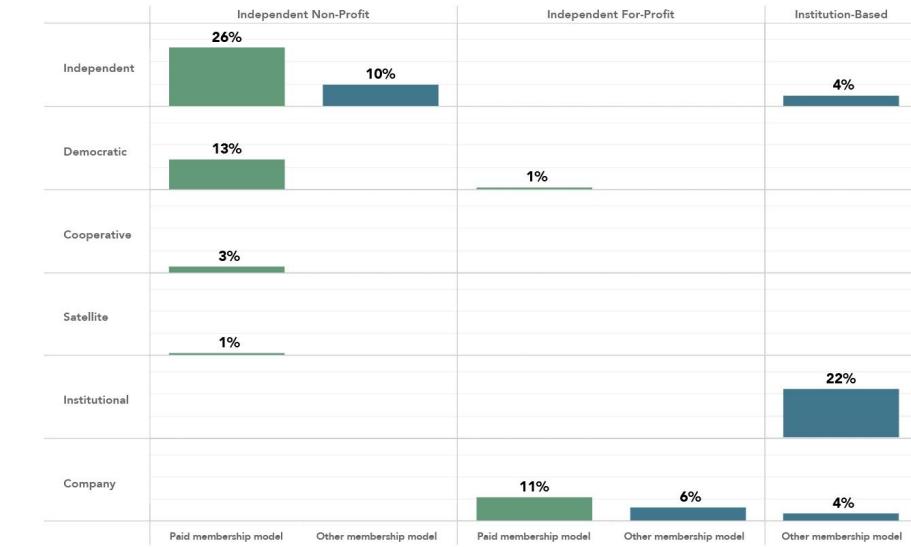


Figure 1.1a - Question E05: "What type of organization is your makerspace and Question E06: What is your Governance Model?"

Figure 1.1b - Question E05: "What type of organization is your makerspace?" and Question E06: "What is your governance model? How do most of the key operations decisions get made in your space."

1.2 - Starting a Makerspace

When comparing responses in 2019 to previous years, creation of new makerspaces, in spaces that participated in our survey, peaked in 2017.

Independent For-Profits makerspaces received significantly more starting funding compared to others, typically libraries and universities in the same category. Even so, these makerspaces received more starting funding than Independent Non-Profit makerspaces.

Initial funding for **Independent For-Profit makerspaces** were mostly from founders and initial revenue. **Independent Non-Profit makerspaces** relied on funding from founders and initial revenue supplemented by donations and grants, while others received funds from a larger organization.

Rent, staff, equipment, and consumables make up the largest percentage of expenses across space types.

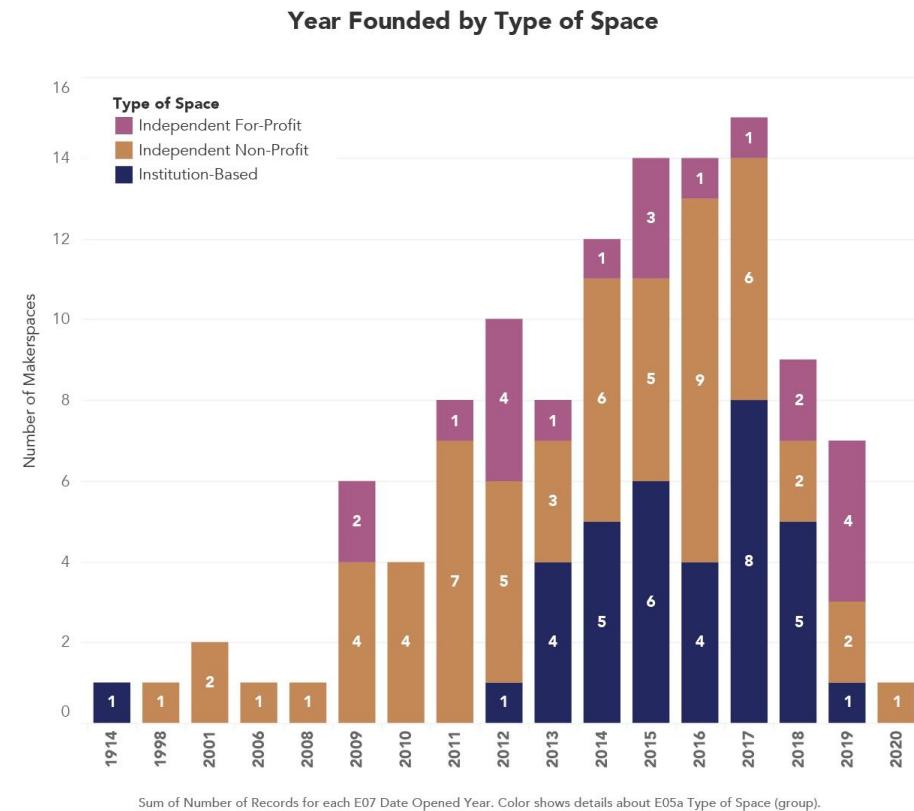


Figure 1.2a - Question 7: "How much funding did your space start out with, when you first opened your doors? (Please use US Dollars - if you don't know, enter 0)"

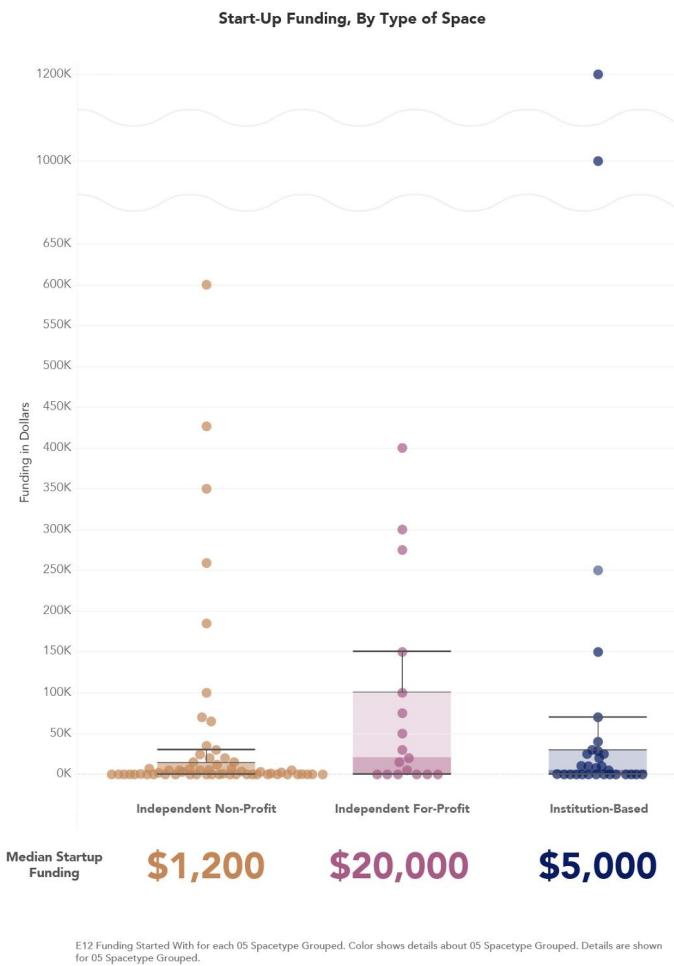


Figure 1.2b - Question 12: "How much funding did your space start out with, when you first opened your doors?"

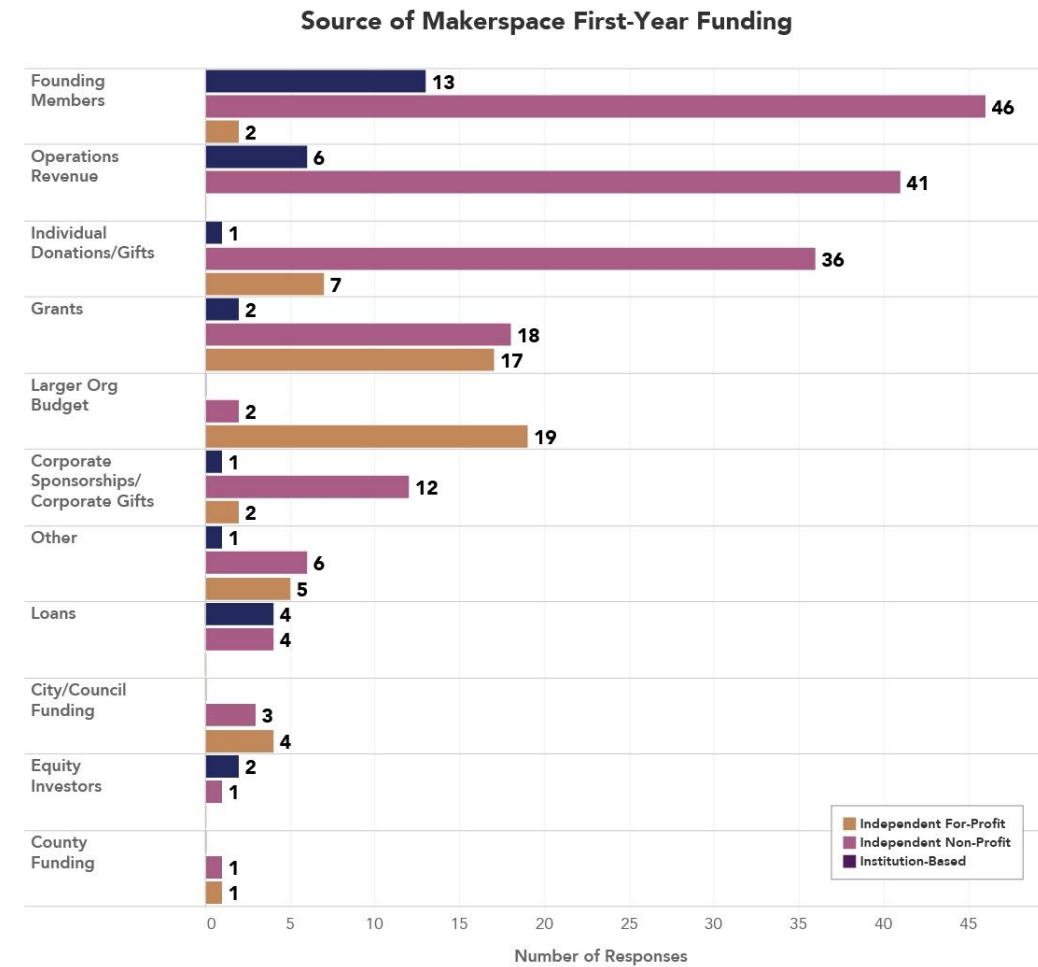


Figure 1.2c - Question 16: "Where did your funding for the first 12 months of operations come from? Include anything you spent before you opened plus the first year after you opened your doors."

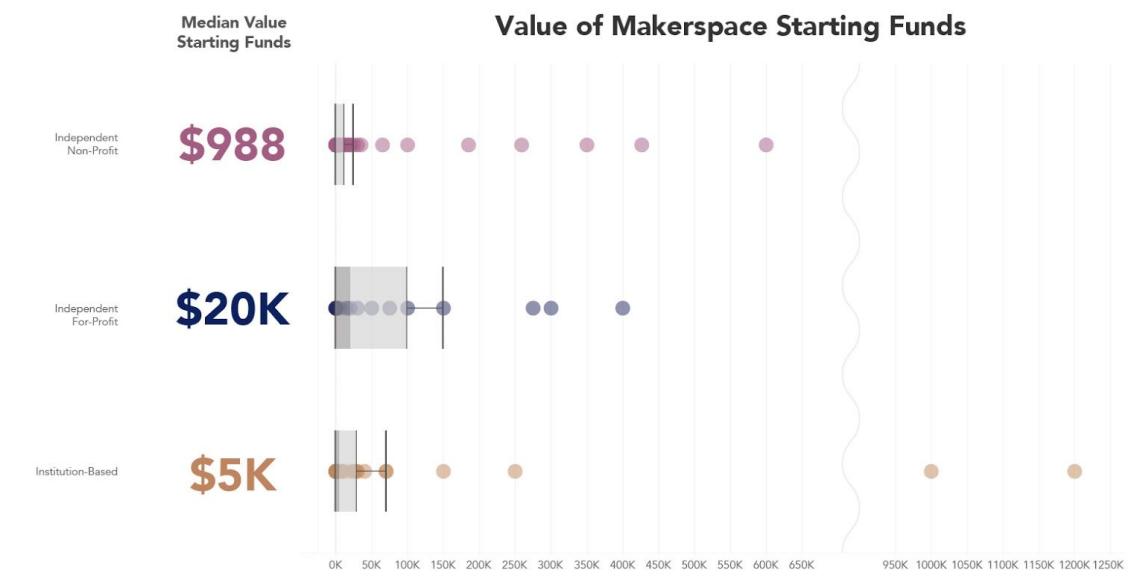
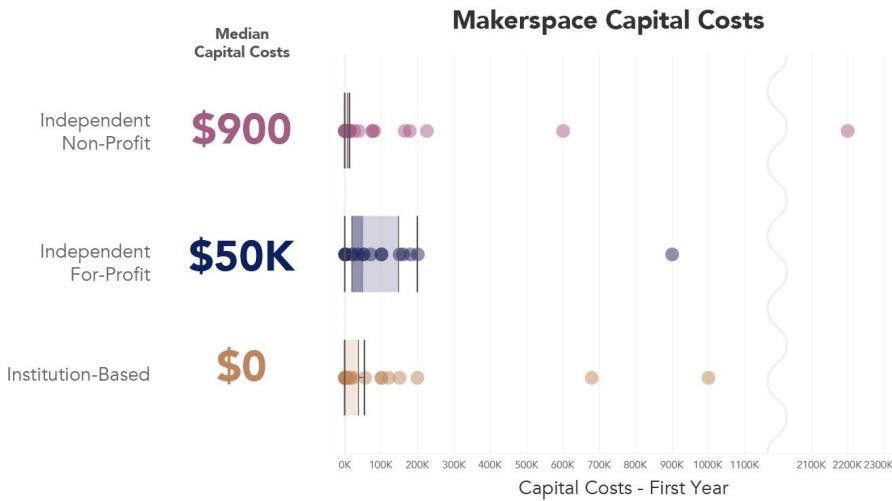


Figure 1.2d - Question 14: "What were your capital costs once you committed to the physical space through to your first 12 months after opening? Capital costs are fixed, one-time expenses incurred on the purchase or lease of land, buildings, construction, and equipment used in the organization."

Figure 1.2e - Question 12: "How much funding did your space start out with, when you first opened your doors?"

1.3 - Facility and Team

Across all space types, most makerspaces rent vs own. **Independent For-Profit** rental rates generally are triple that of **Independent Non-Profits**. Purchase price ranges for profit and non-profit purchases are about equal.

Makerspace type is not always a predictor of the size of the facility. When it comes to rent, **Independent Non-Profits** have a median rent of \$2000 per month. **For-Profits** cluster larger, and have a median rent of \$7,220; this appears to be reflected in their utility bills, with significantly higher utilities expenses. Institution-Based spaces have a median rent of \$3,100.

For the most part, **Independent For-Profit** and **Independent Non-Profit** makerspaces have equivalent staffing. All space types have made significant investments, with **For-Profits** investing more heavily in improvements.

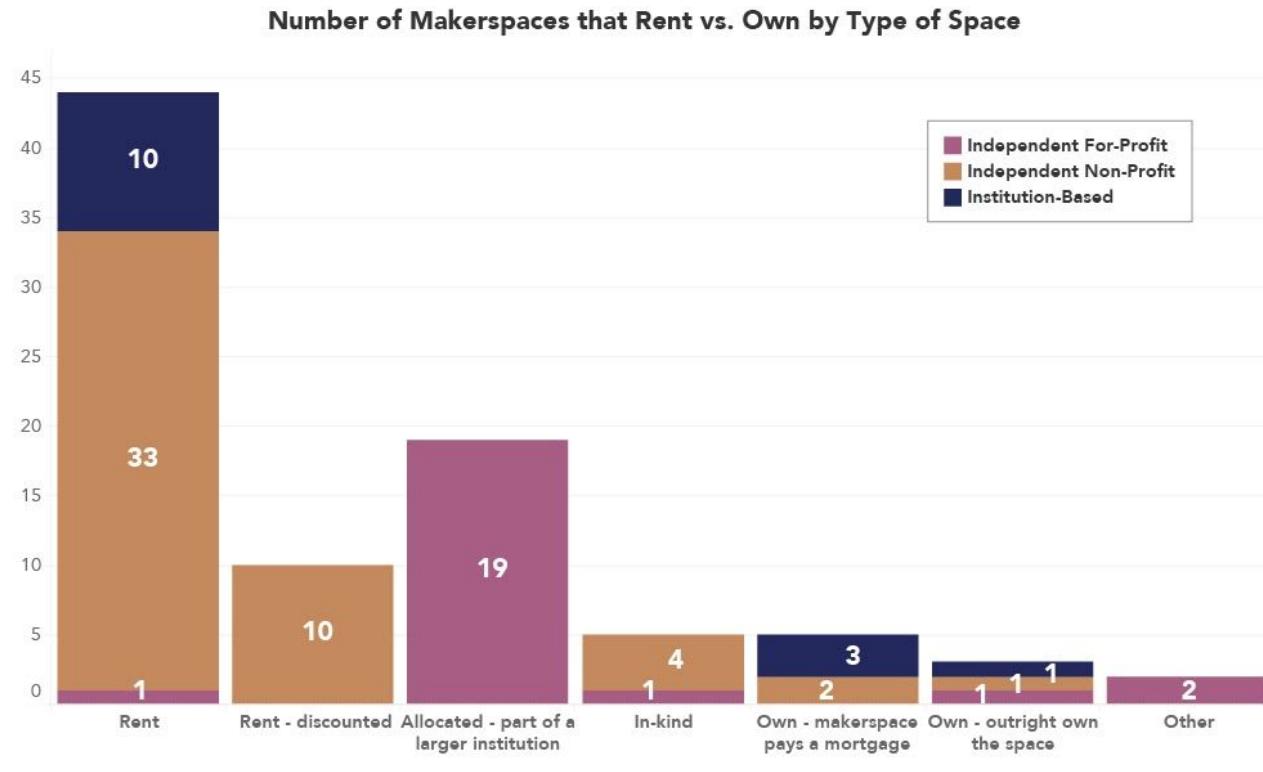


Figure 1.3a - Question 43: "Does your makerspace rent or own your current facility?"

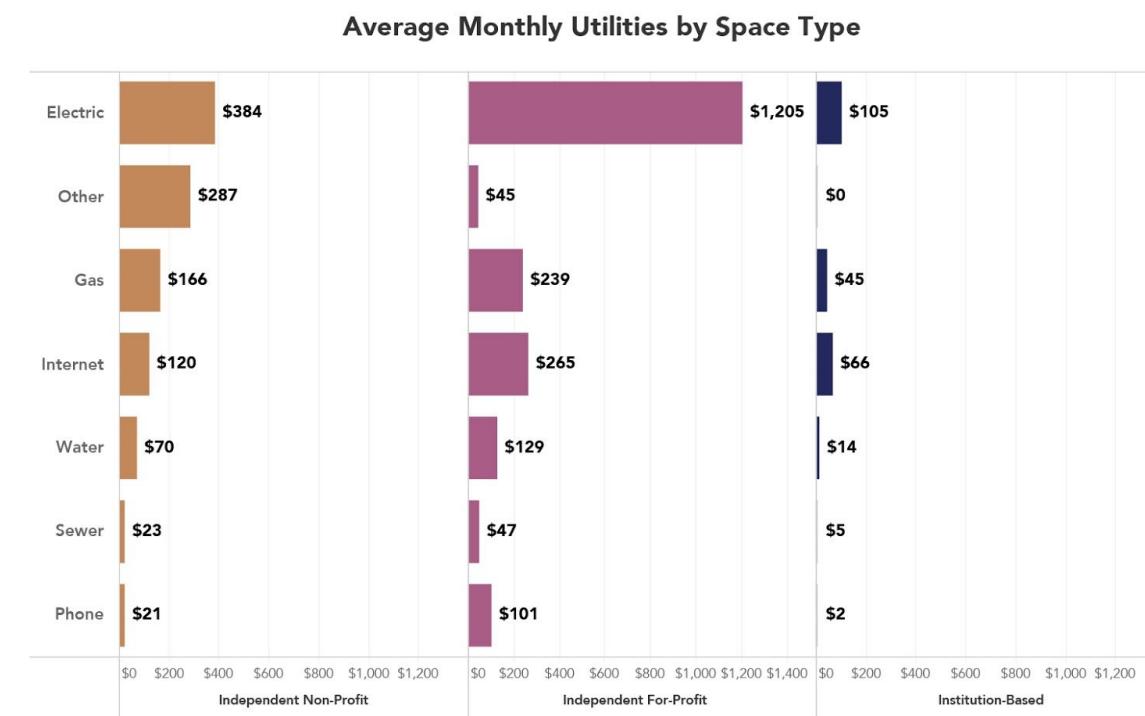
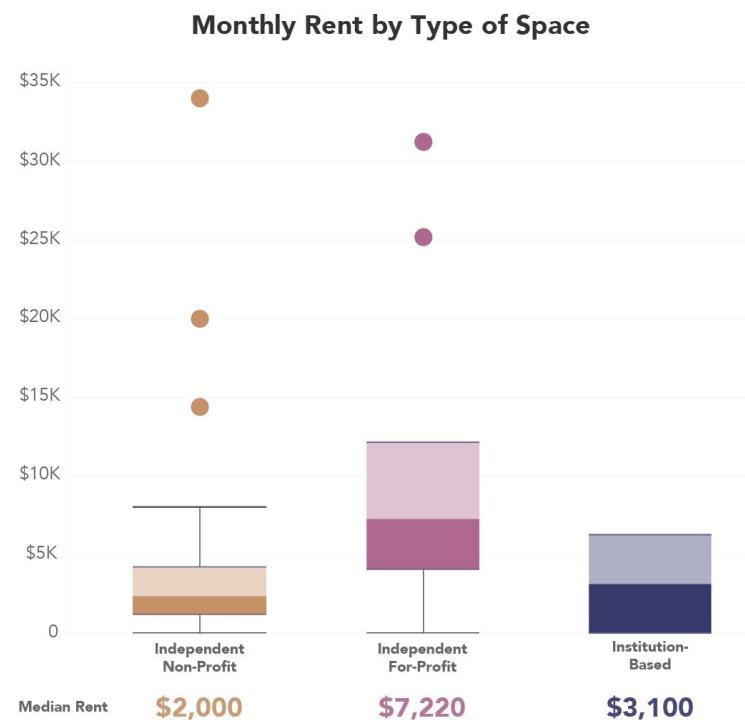
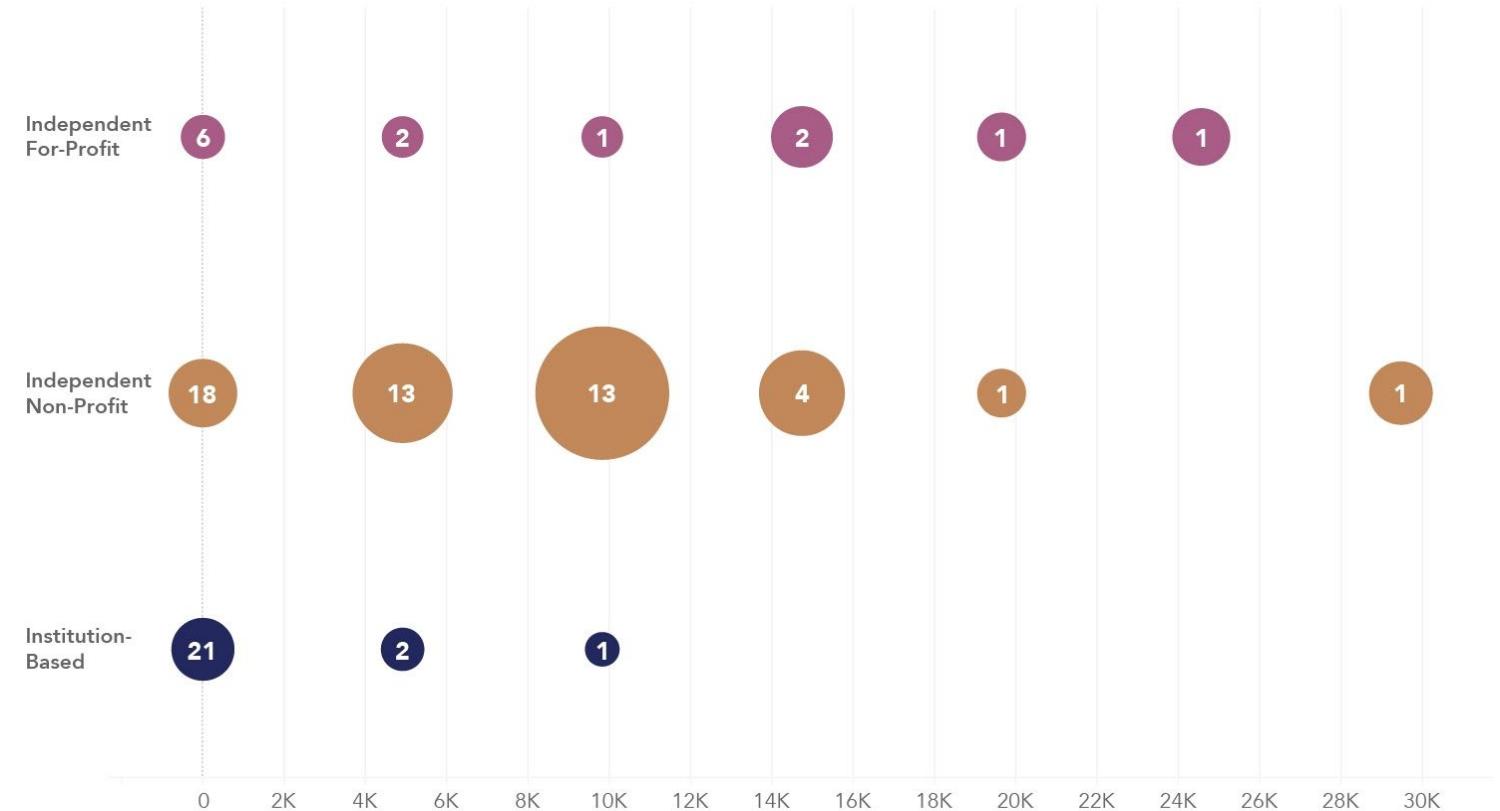


Figure 1.3b - Question 46: "If you rent, what is your monthly rent?"

Figure 1.3c - Question 47: "What is your monthly utility cost?
(If it is donated, please enter the value of the donation for these items. Use whole numbers with no symbols.)"

Makerspace Square Footage by Space Type



E42 Square Footage (bin) for each E05a Type of Space (group). Color shows details about E05a Type of Space (group). Size shows sum of E42 Square Footage. The marks are labeled by count of E42 Square Footage. The view is filtered on E42 Square Footage (bin), which ranges from 0K to 59K.

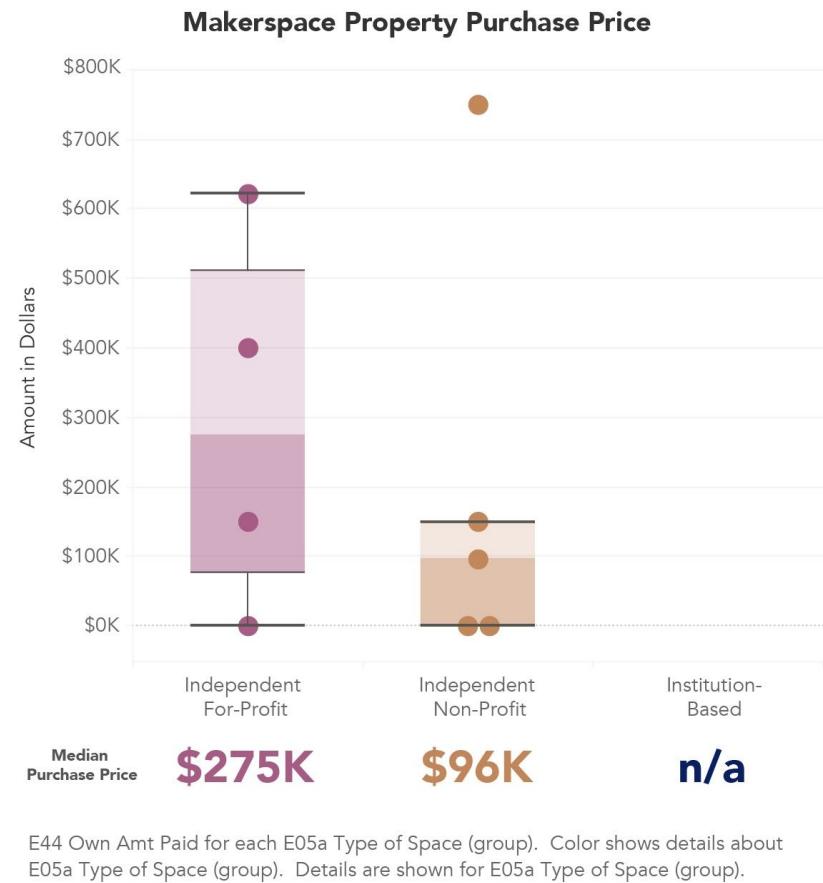


Figure 1.3d - Question 44: "If 'own' is marked above - How much did you pay for the property?"

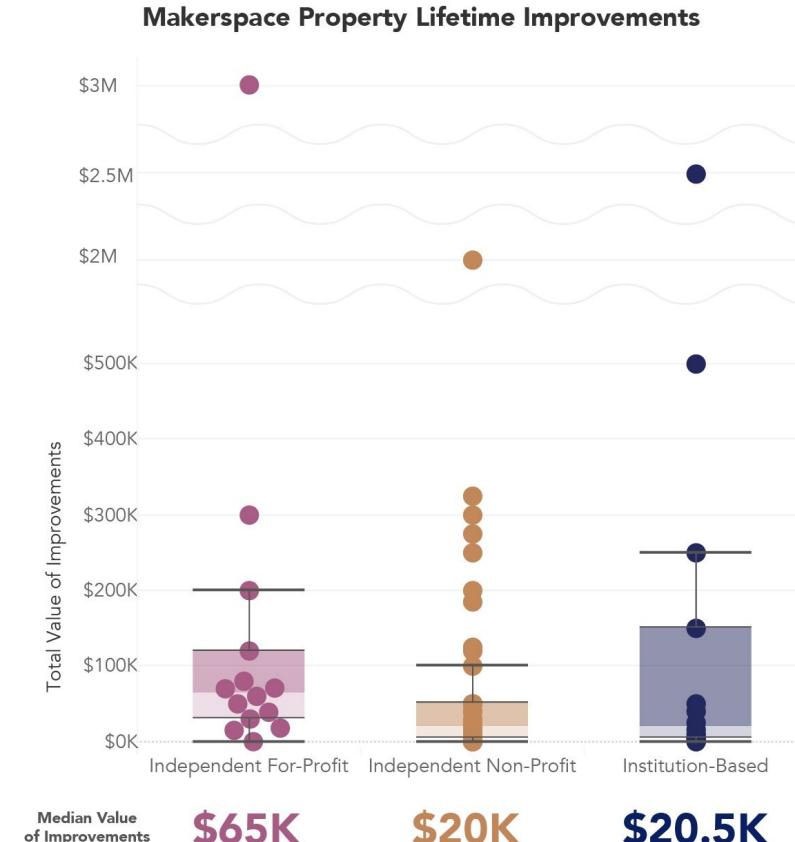


Figure 1.3e - Question 45: "What is the total cash and in kind value of improvements you have made over time to your current space?"



Figure 1.3f - Question 48: "How many individuals are employed or are active in running your space? (Please enter in whole numbers with no symbols.)"

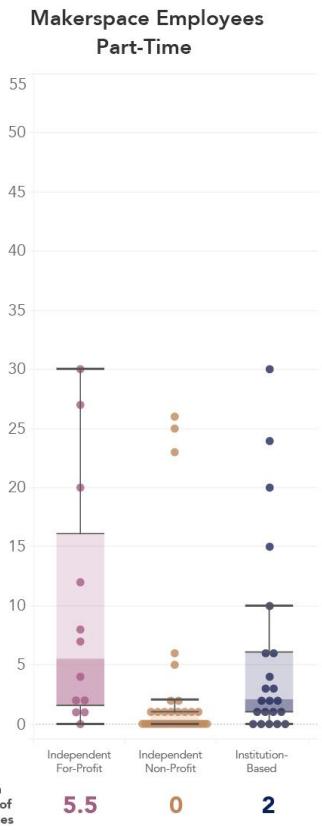


Figure 1.3g - Question 48: "How many individuals are employed or are active in running your space? (Please enter in whole numbers with no symbols.)"

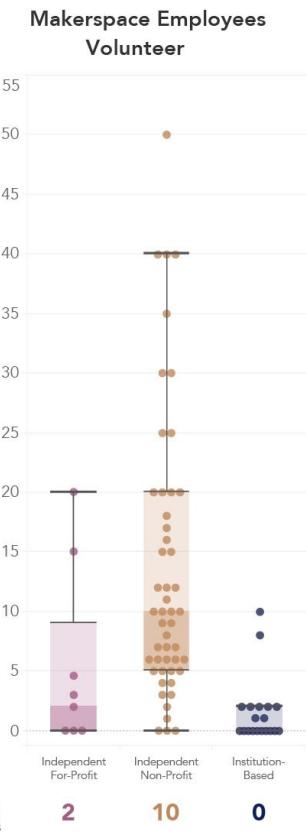


Figure 1.3h - Question 48: "How many individuals are employed or are active in running your space? (Please enter in whole numbers with no symbols.)"

1.4 - 2019 Expenses and Income

The total amount of money being transferred into and out of a entity (i.e. Cash Flow), can make or break any new small business, makerspaces included. The Nation of Makers' Economies survey has aggregated cash flow data and parsed it out to allow makerspaces to easily make comparisons within and across the different models of makerspaces.

When it comes to income sources, **Independent For-Profit** makerspaces are the most diversified, followed by **Independent Non-Profit** makerspaces, and then **Institution-Based** spaces (figure 1.4b). The highest expense for **Independent For-Profit** and **Independent Non-Profit** spaces is rent, and the highest expense for **Institution-Based** spaces is salaries (figure 1.4a).

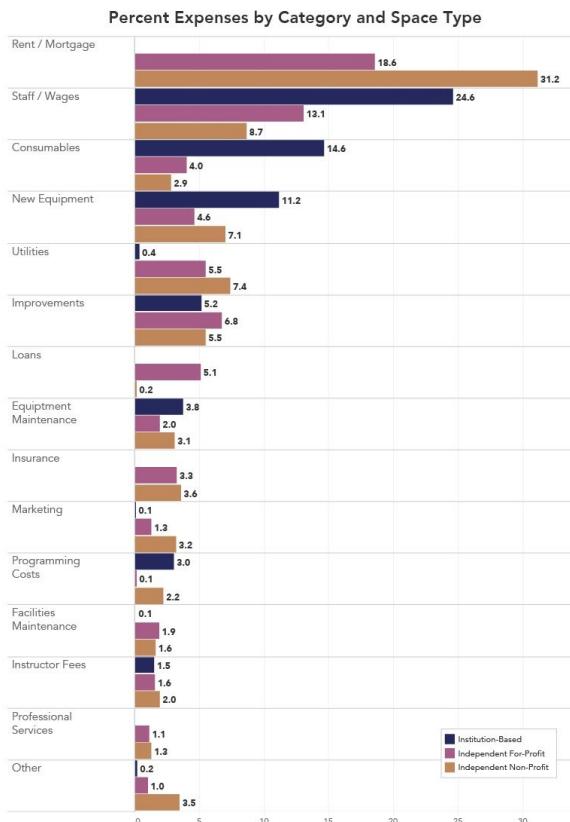


Figure 1.4a - Question 18: "What were your expenses in the following categories in the last year?"

Percentage of Income by Category and Space Type

[Columns are averaged and rounded and will not add up to 100%]

	Independent Non-Profit	Independent For-Profit	Institution-Based
Membership	53	37	0
Grants	17	8	26
Donations Monetary	16	6	25
Classes	14	17	0
Other	11	13	73
Studio Table Rentals	7	8	0
Donations In-Kind	4	0	4
Event Room Rentals	3	3	0
Design & Make For Hire Services	2	28	0
Tool Use Fees	2	1	1
Storage Rental	1	14	0
Loans	1	10	0
Retail Product Sales	1	2	0
Office Rentals	1	12	0
Co-working	1	5	0
Tool Rental	1	0	0
Material Fees	1	2	3
Training Certification	0	0	0

Institution-Based, Independent For-Profit and Independent Non-Profit broken down by Values. Color shows Institution-Based, Independent For-Profit and Independent Non-Profit. The marks are labeled by Institution-Based, Independent For-Profit and Independent Non-Profit.

Figure 1.4b - Question 17: "In the last 12 months, what percent of your revenue came from the following sources?"

1.5 - Membership and Fees

In addition to paying for membership, there can be other expenses when it comes to making at your local DIY space. While some spaces charge fees for breaking a tool, most do not. About half of both **Independent For-Profit** and **Independent Non-Profit** spaces report having fees for tool use, while **Institution-Based** spaces rarely charge.

Breakage Fees by Space Type

	Independent For-Profit	Independent Non-Profit	Institution-Based
No	8	39	21
Yes	6	13	2

Count of E40 Breakage Fees broken down by 05 Spacetype Grouped vs. E40 Breakage Fees (group).

Consumables Provided by Space Type

	Independent For-Profit	Independent Non-Profit	Institution-Based
No	2	8	0
Yes	12	44	23

Count of E39 Consumables Provided broken down by 05 Spacetype Grouped vs. E39 Consumables Provided (group).

Tool Fees by Space Type

	Independent For-Profit	Independent Non-Profit	Institution-Based
No	9	30	19
Yes	5	22	4

Count of E34a Tool Charges broken down by 05 Spacetype Grouped vs. E34a Tool Charges (group).

Figure 1.5a - Question 40: "Do you charge fees for breakage?"

Figure 1.5b - Question 39: "Do you provide consumable items for your tools?"

Figure 1.5c - Question 34: "Do you have tool use charges?"
Question 40: "Do you charge fees for breakage?"

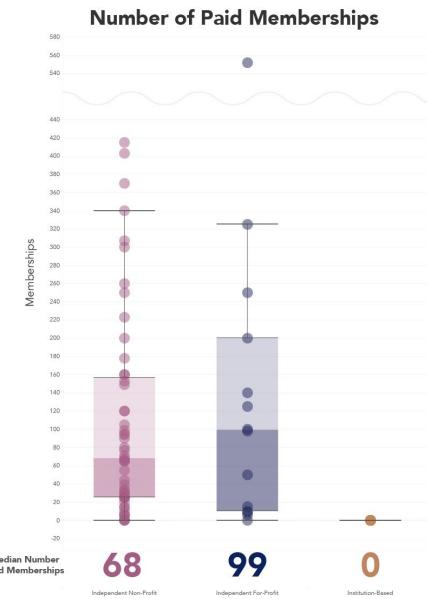


Figure 1.5d - Question 31: "Current number of paid memberships"

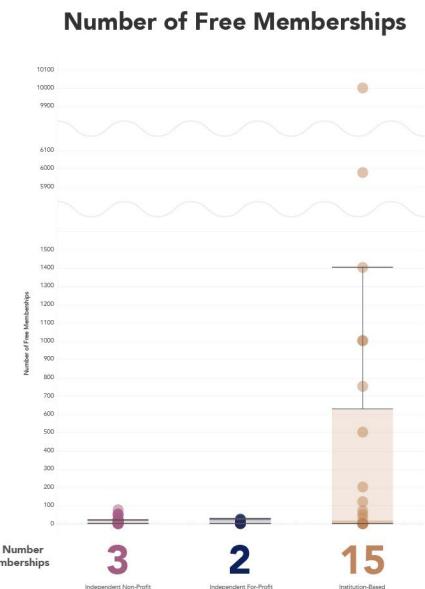


Figure 1.5e - Question 32: "Current number of free/granted memberships"

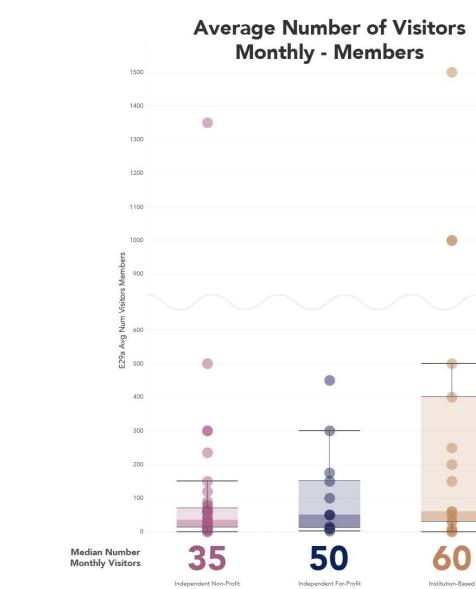


Figure 1.5f - Question 29a: "What is the average number of people who visit your space each month - Members?"

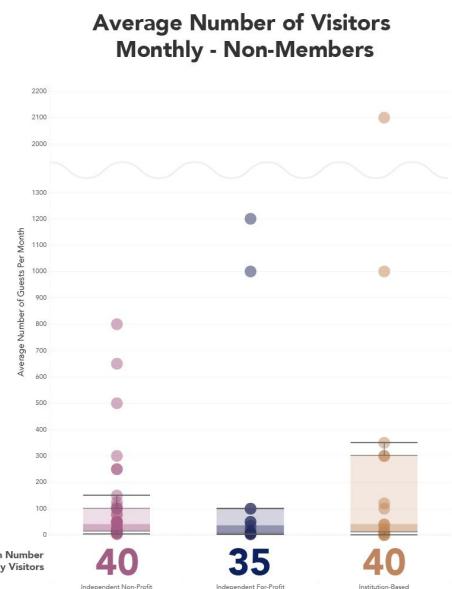


Figure 1.5g - Question 29: "What is the average number of people who visit your space each month - Non-Members?"

1.6 - People Served

The Mission, location, business model, and setting of a makerspace may influence the type of person they attract. When it comes to age, the bulk of members for both **Independent For-Profit** and **Independent Non-Profit** fall between the ages of 25 and 55, while the majority of people who use **Institution-Based** spaces are 24 and under.

Institution-Based spaces also engage the highest percentage of females, however all three categories of makerspaces report having more male engagement than female.

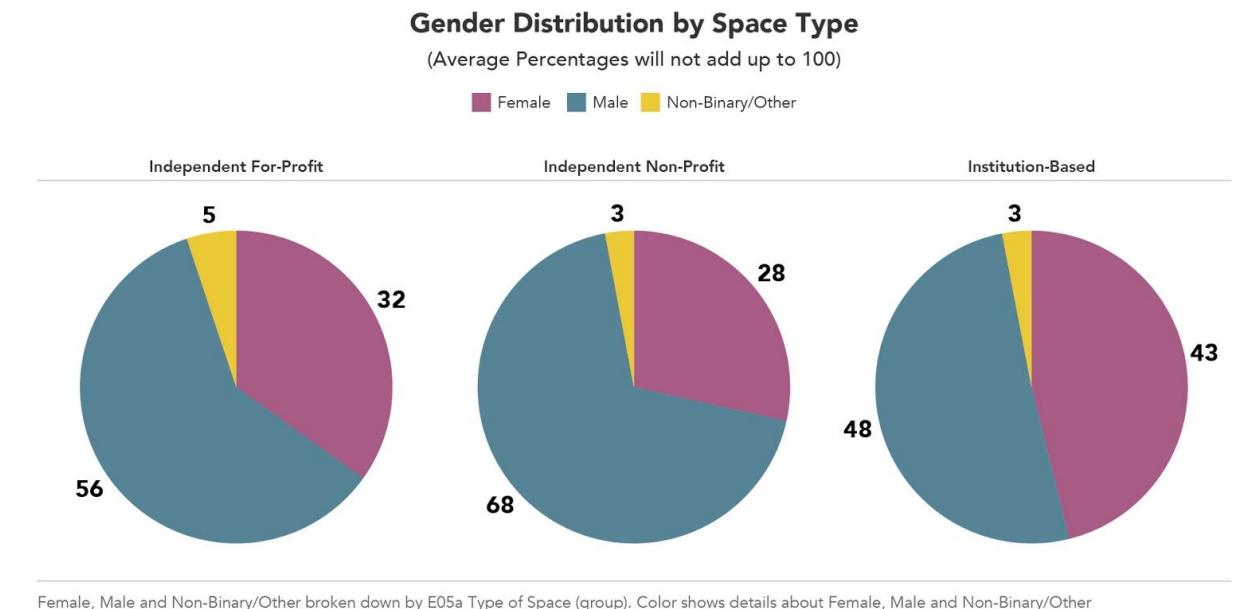
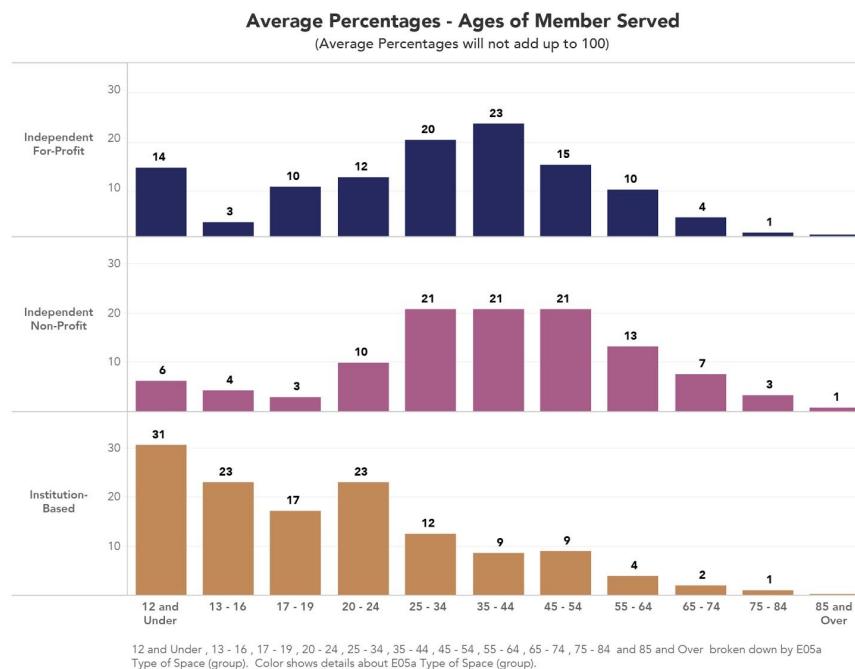


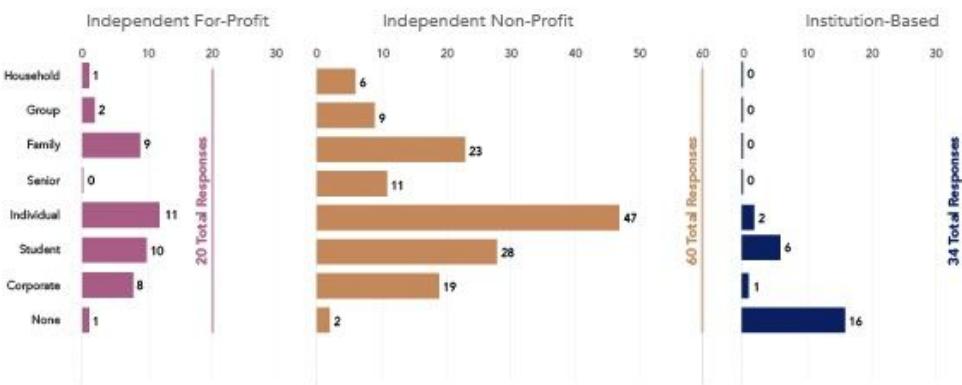
Figure 1.6a - Question 50: "What percentage of makers that use your space are within the following age ranges?"

Figure 1.6b - Question 51: "What percentage of makers that use your space are of the following genders?"

1.7 - Space Access and Membership Restrictions

The data gathered regarding access references the variety of ways makerspaces structure their membership options. Each makerspace is unique unto itself. Yet, when looking at the different types of spaces, we noticed that the **Independent For-Profit** and **Independent Non-Profit** makerspaces followed similar trends in many categories, including: access, membership tiers, and membership time period lengths. **Institution-Based** spaces have a very different structure regarding when and how their users access the makerspace.

Types of Memberships Offered



Membership Restrictions by Type of Space

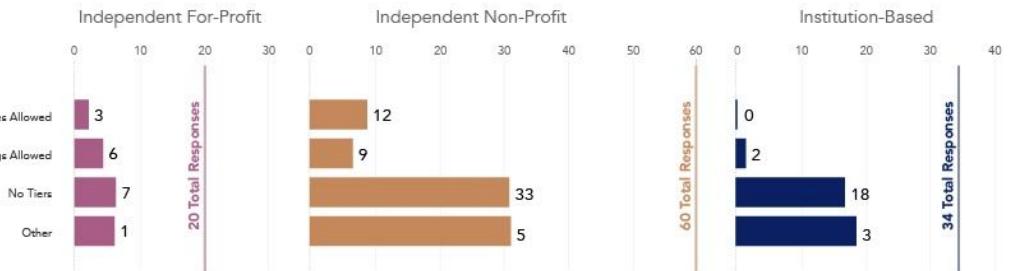


Figure 1.7a - Question 19: "How do you classify memberships? (Select all that apply)"

Figure 1.7b - Question 21: "Do you have tiers of membership that provide different levels of access? (can select multiple)"

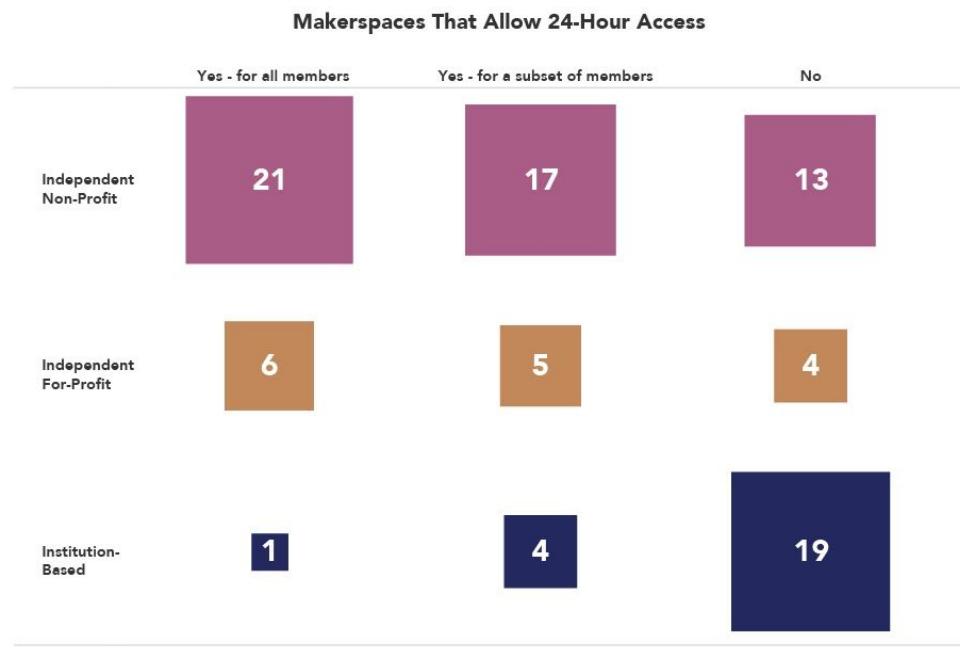


Figure 1.7c - Question 22: "Do you offer 24-hour access for some or all members?"

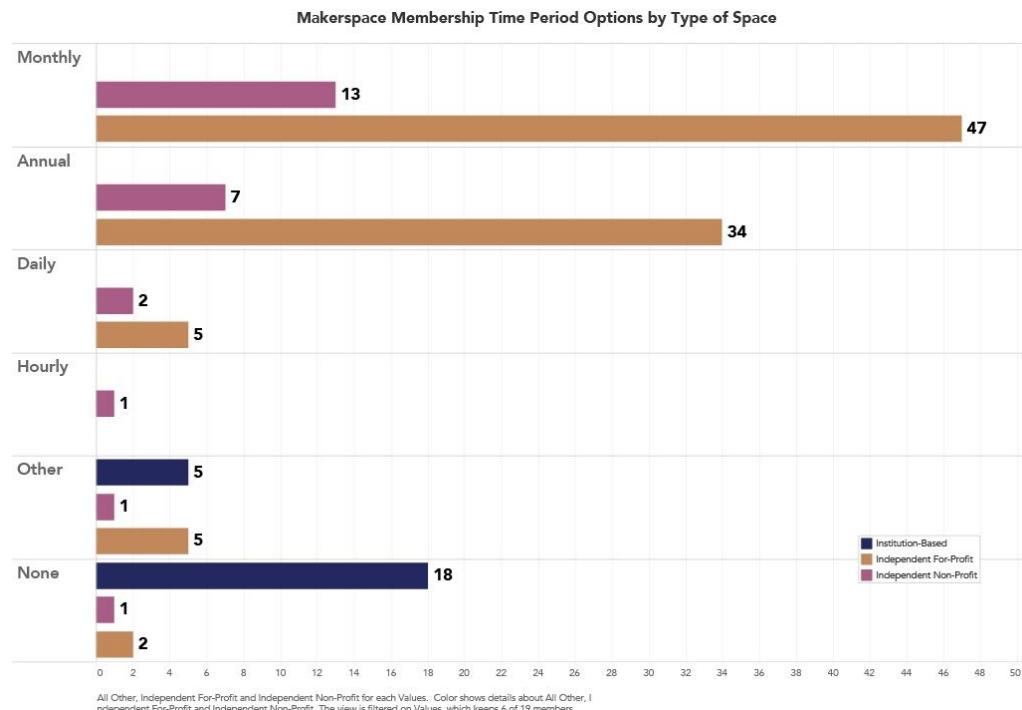


Figure 1.7d - Question 20: "What length(s) of memberships do you offer?"

1.8 - Mission, Services & Tools

Mission is key to an organization, especially when developing or fine-tuning a business model. **Institution-Based** makerspaces overwhelmingly listed Education as the highest priority for their mission, while **Independent Non-Profits** ranked Shared Community Workspace as the top priority. **Independent For-Profits** showed Shared Community Workspace and well as Education as equally important top priorities for their mission. Not surprisingly, all types of makerspaces listed Education as one of the top three aspects of their mission. Regardless of the type of space, tool safety and orientation is a frequently offered program.

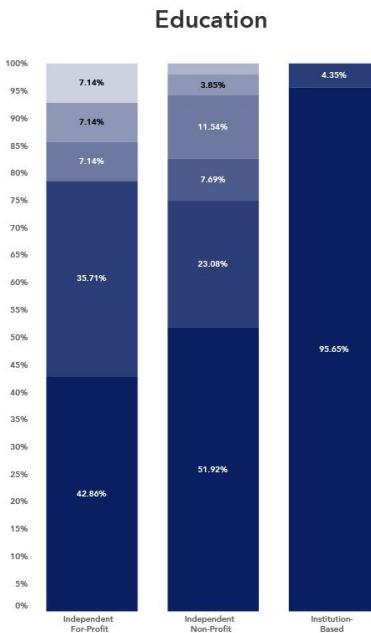


Figure 1.8a - Question 30: "How important are each of the following to the mission of your makerspace?: Education"



Figure 1.8b - Question 30: "How important are each of the following to the mission of your makerspace?: Economic Development"

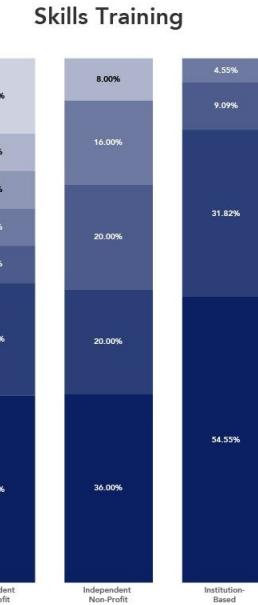


Figure 1.8c - Question 30: "How important are each of the following to the mission of your makerspace?: Skills Training"



Figure 1.8d - Question 30: "How important are each of the following to the mission of your makerspace?: Workforce Development"

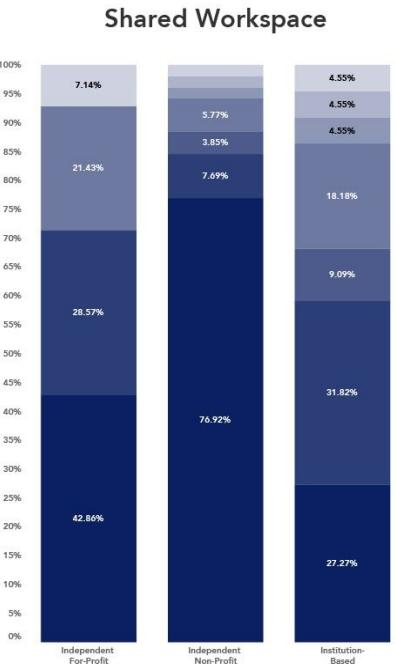


Figure 1.8e - Question 30: "How important are each of the following to the mission of your makerspace?: Shared Workspace"



Figure 1.8f - Question 30: "How important are each of the following to the mission of your makerspace?: Art and Culture"

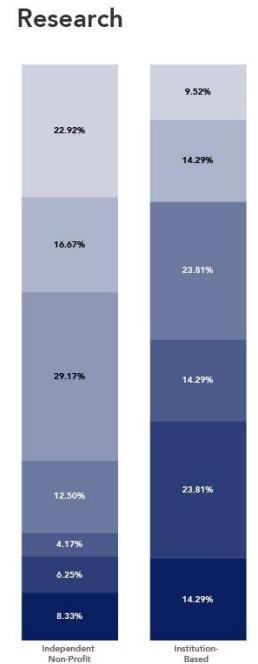


Figure 1.8g - Question 30: "How important are each of the following to the mission of your makerspace?: Research"

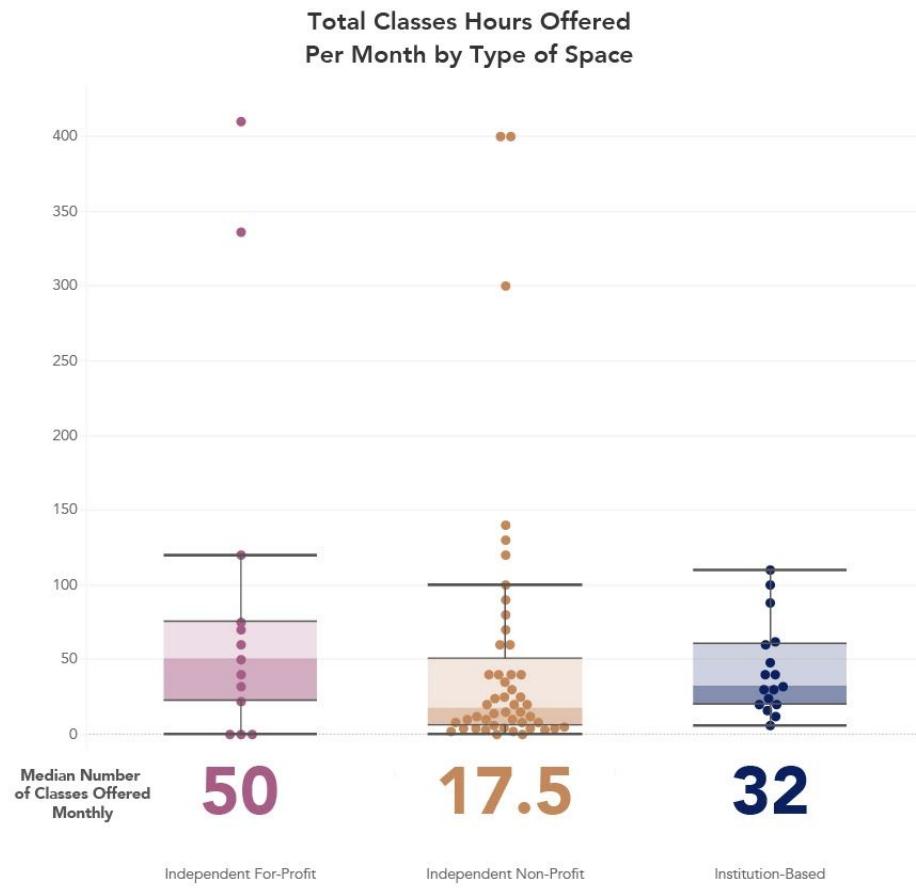


Figure 1.8h - Question 28: "How many total hours of classes do you offer per month?"

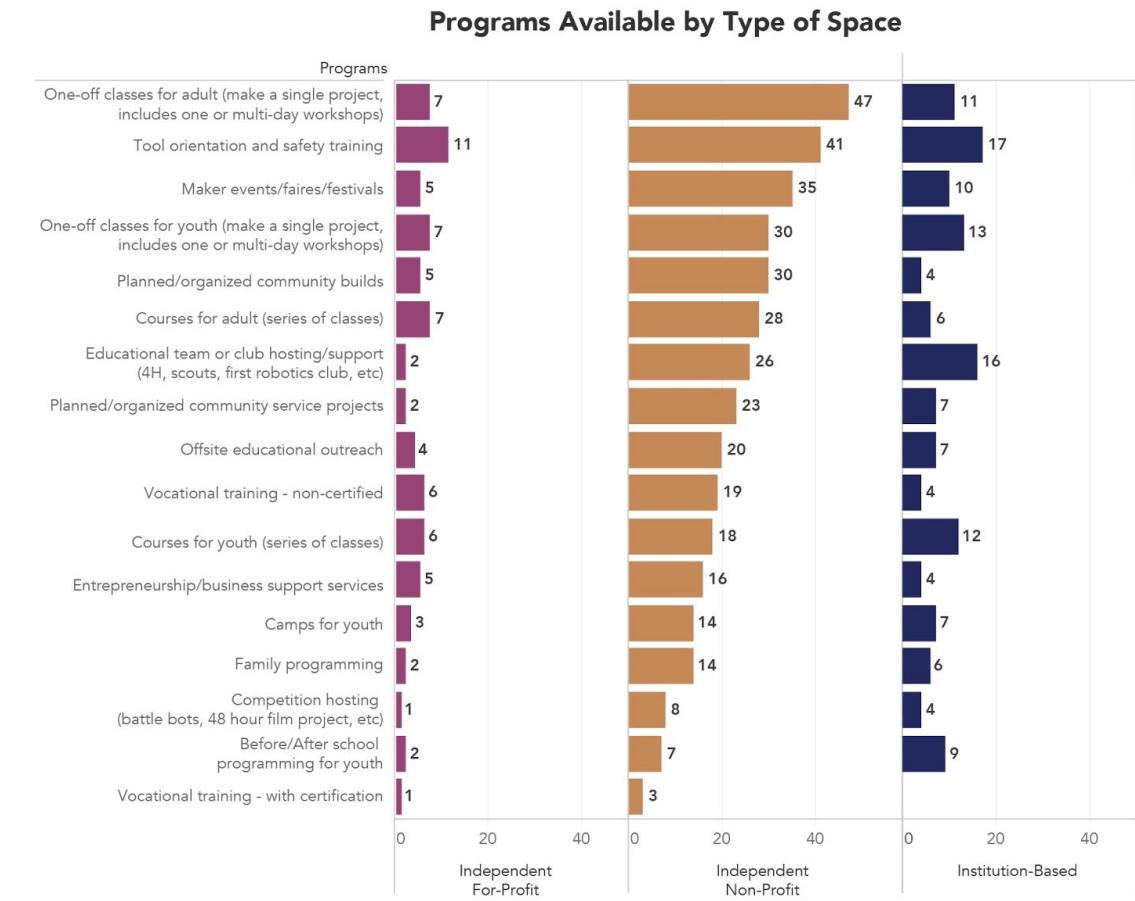


Figure 1.8i - Question 27: "What type of programming do you offer?"

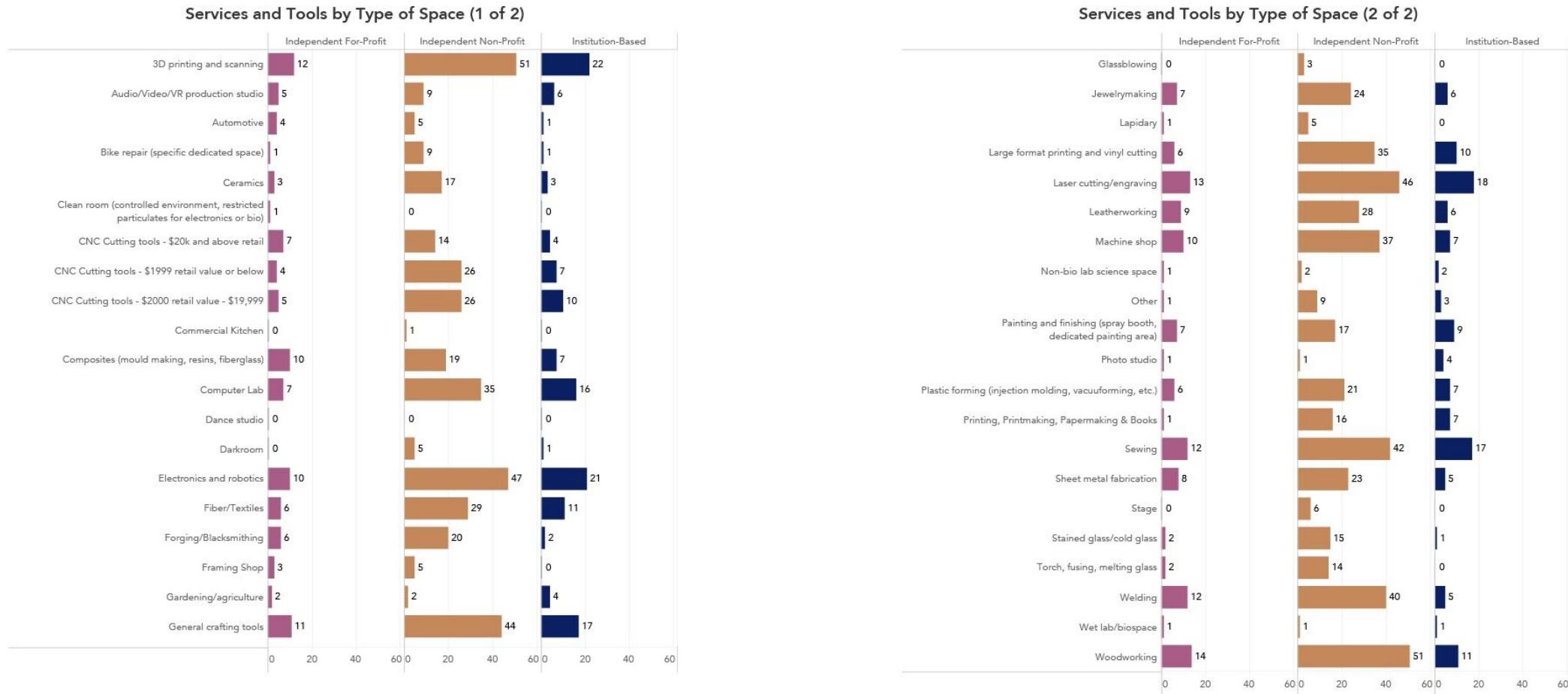


Figure 1.8j - Question 25: "What services and tools does your makerspace offer? (Please select all that apply.)"

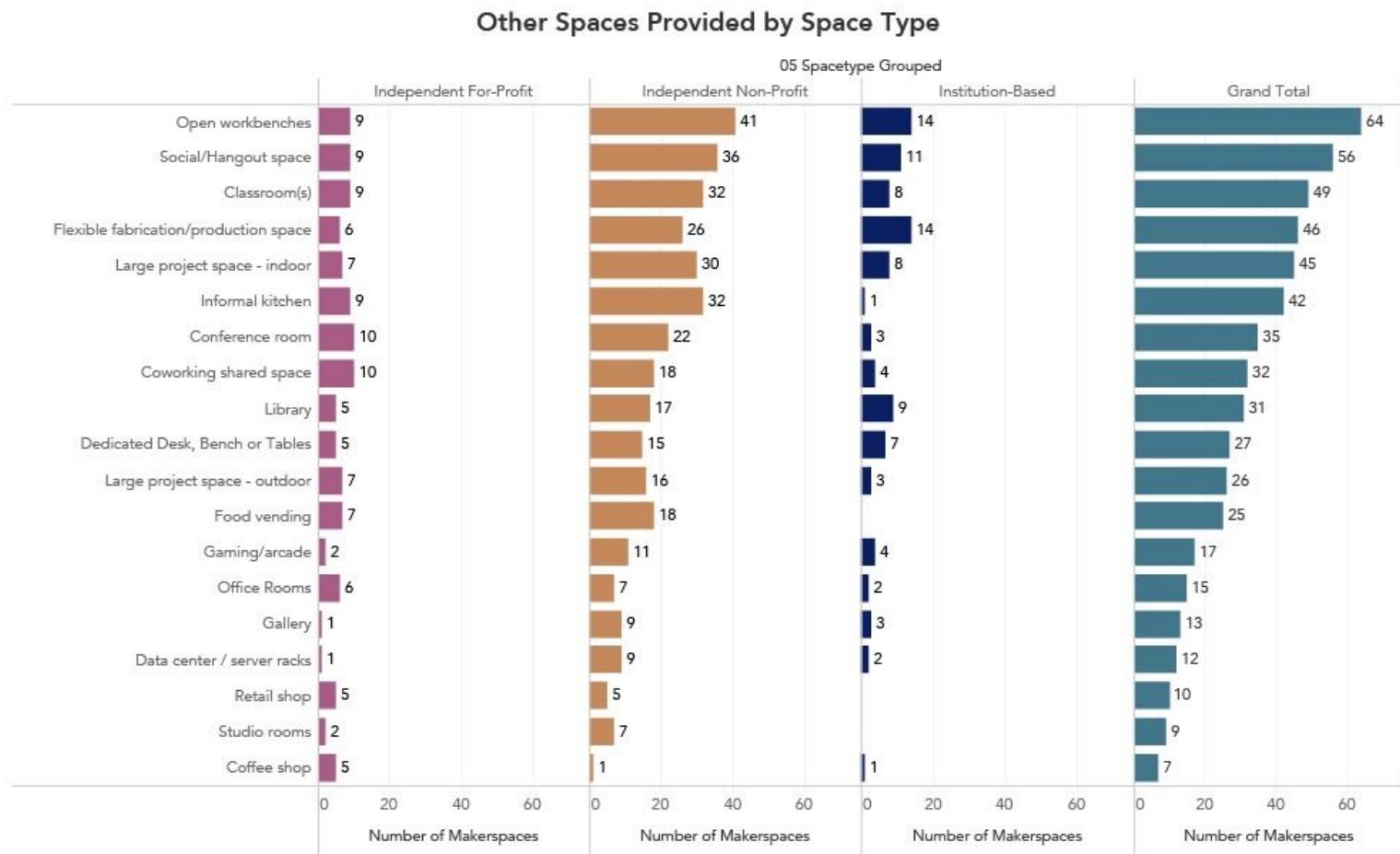


Figure 1.8k - Question 26: "Does your makerspace also provide any of the following? (Please select all that apply.)"

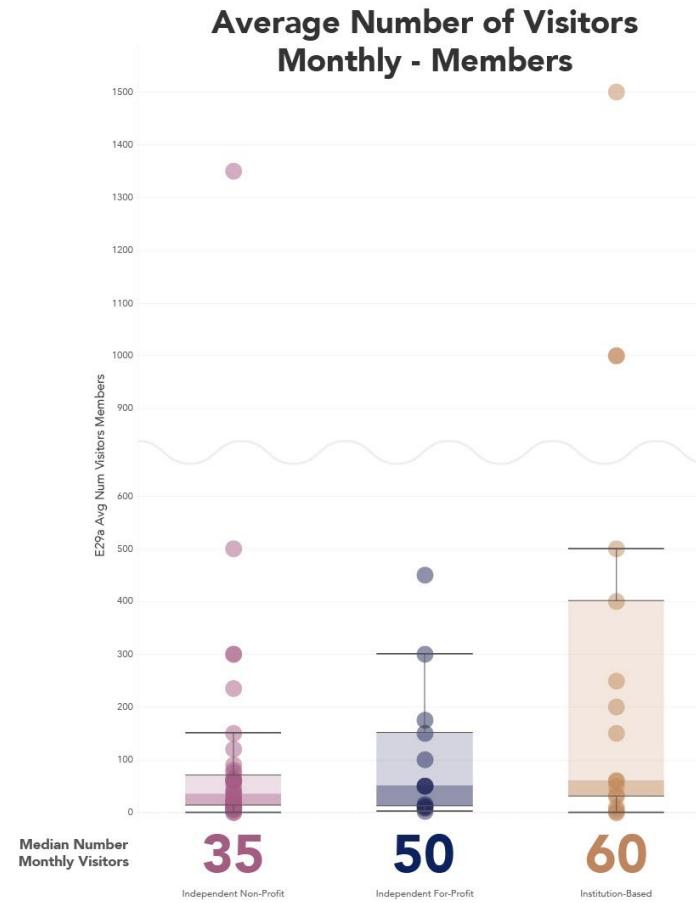


Figure 1.8l - Question 29: "What is the average number of people who visit your space each month? (Answer as accurately as you can. If you do not know, then skip the question.)"

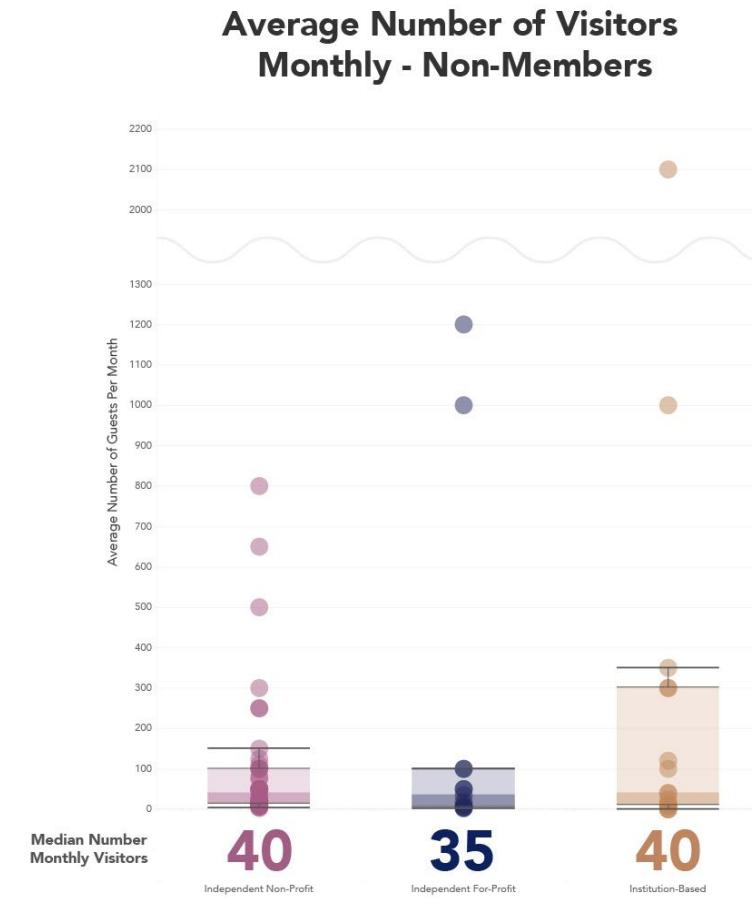


Figure 1.8m - Question 29: "What is the average number of people who visit your space each month? (Answer as accurately as you can. If you do not know, then skip the question.)"

1.9 - Tool Access

Shared tool access is essentially synonymous with the term makerspace. Yet different types of space have different policies and procedures for keeping track of and securing their tools. In this survey we found half of all spaces track tool usage. Across all types of spaces the most commonly locked up tools are CNC, Laser Cutters, and 3d printers. Many of the more basic tools such as computers, metal working, and woodshop are not locked and are readily accessible.

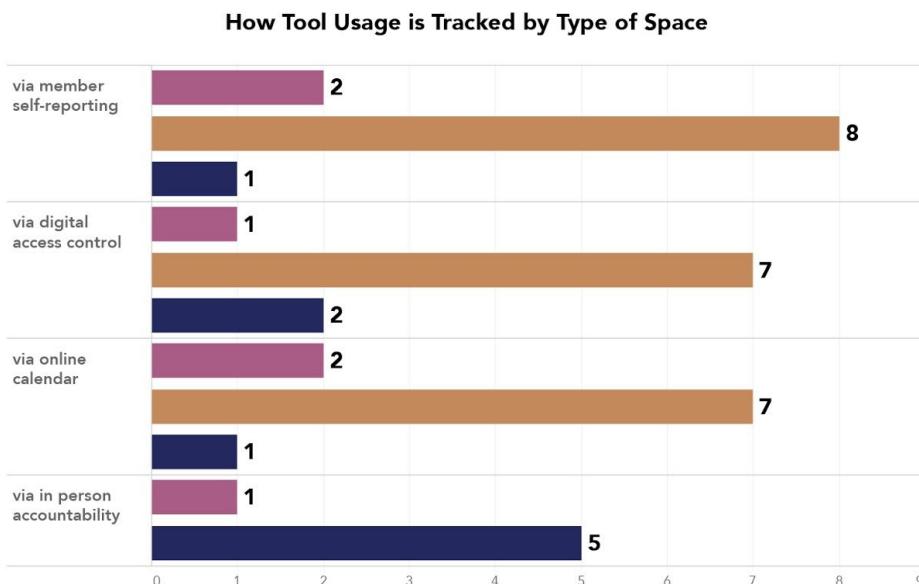


Figure 1.9a - Question 36: "Do you track usage of specific tools? If yes, how?"

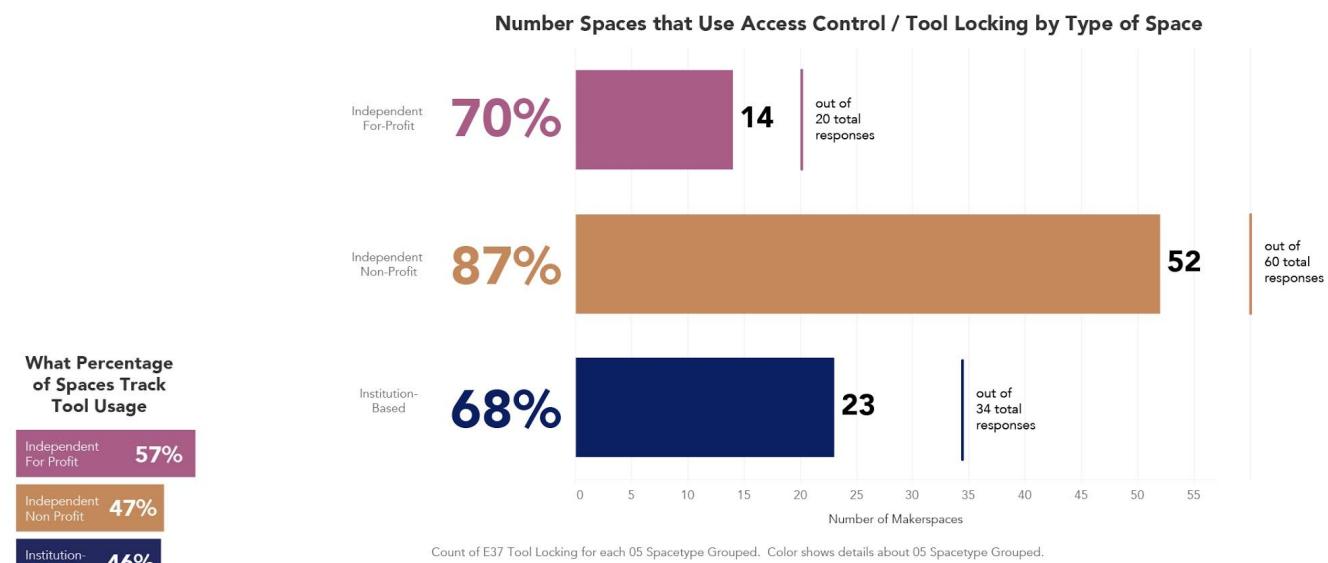


Figure 1.9b - Question 37: "Is some of your equipment locked and opened by access card, fob, key, or login?"

Tools That Have Access Control in Makerspaces

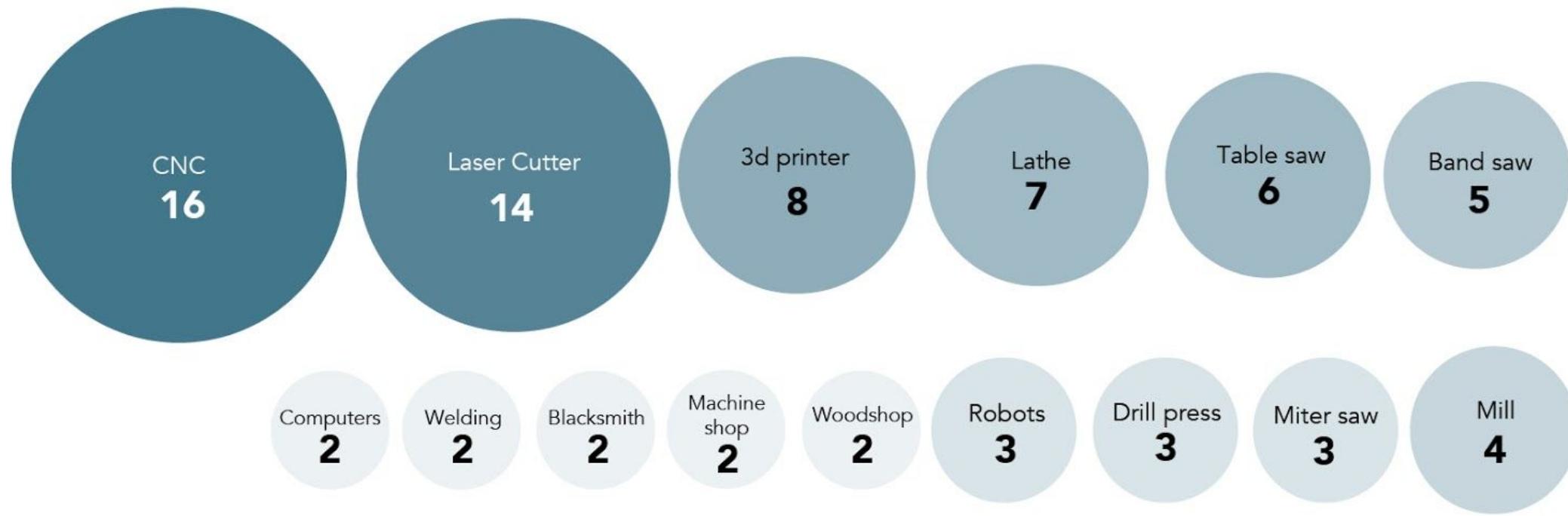


Figure 1.9c - Question 38: "If some of your equipment is access controlled, what tools are locked or access controlled?"

1.10 - Marketing

Marketing is a crucial part of developing and growing your membership and there are a multitude of platforms, apps, and mechanisms available to reach new audiences. **Independent**

For-Profits appear to engage in more marketing activity than **Independent Non-Profit** or **Institution-Based** makerspaces. Across the board most makerspace marketing happens through they most frequently rely on Instagram and Facebook, followed by emailed newsletter.

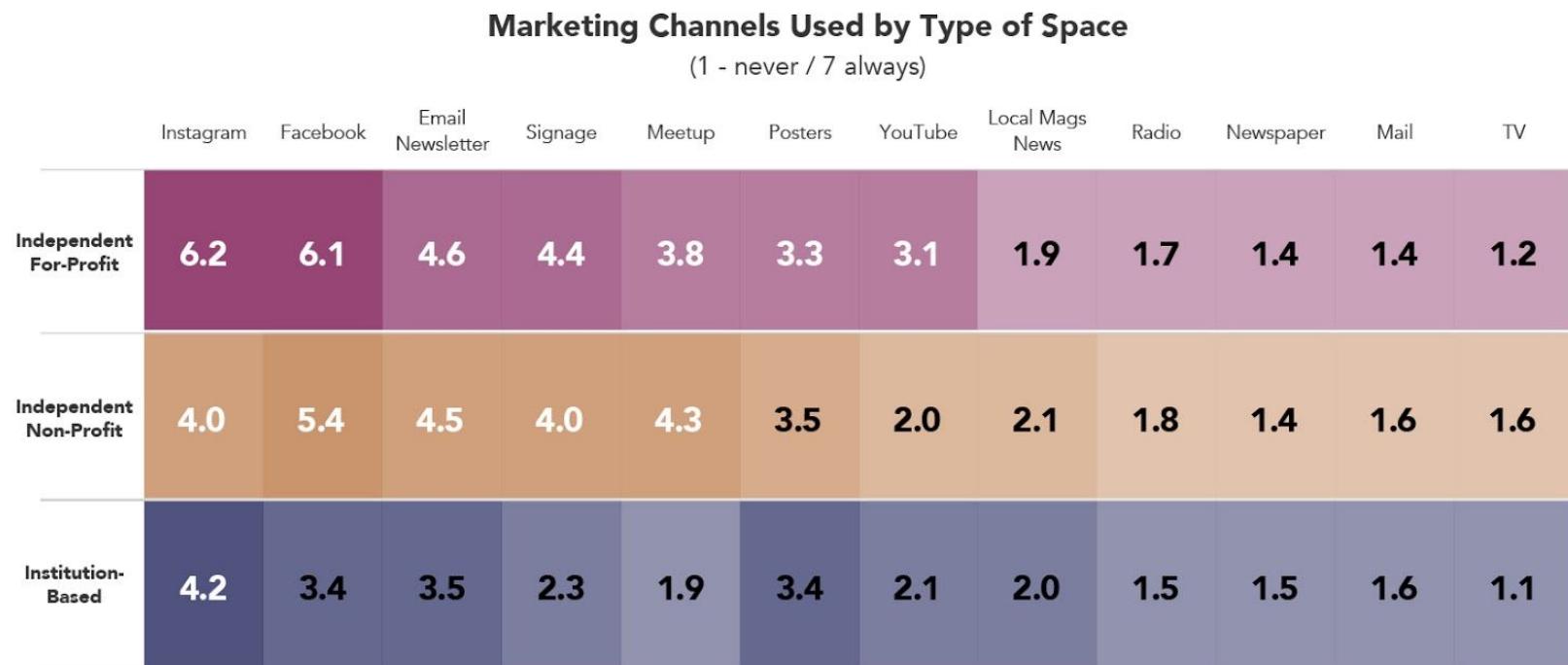


Figure 1.10a - Question 41: "How often do you market your makerspace using the following channels?"

Section 2

The Leaders of Makerspaces

Leaders of Makerspaces provide direction, vision and instruction to unique communities makers who come together to learn, create and innovate. Some leaders have a formal title and roles, while others are volunteers that step up and do what needs to be done. Since each makerspace and organizational structure is unique to their own community and situation, we asked leaders to self-identify and participate in the 2019 Leadership Survey.

There was no limit to how many self-identified leaders from each makerspace could take the survey. **332 leaders from 220 different makerspaces** participated in the 2019 Survey of Makerspaces Leadership Survey. The purpose of this survey is to provide a general snapshot of the leadership landscape in makerspaces.

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2.1 - Basic Demographics

The majority of leaders who participated in the survey identify as Caucasian at nearly 82%. For the most part, the age of makerspace leaders are fairly evenly distributed between the ages of 25 and 59, with the most common age group trending towards 35-39. When leader's age was looked at according to *Type of Space* the leaders falling outside of the most common age ranges of 25-59 were found to be affiliated with independent makerspaces, and the very youngest and oldest of makerspace leaders all came from **Independent Non-Profits**.

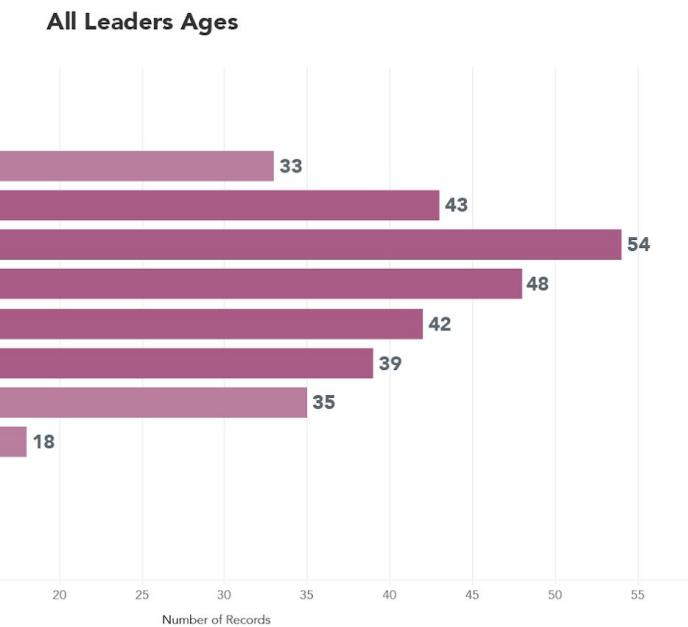
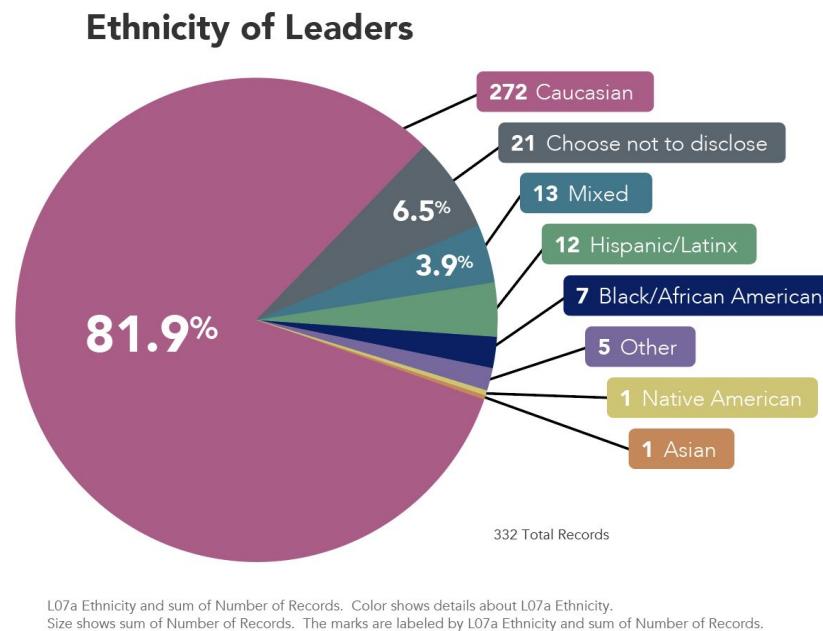


Figure 2.1a - Question 7: "Your ethnicity"

Figure 2.1b - Question 6: "Your age"

Age of Makerspace Leaders by Type of Space



% of Total Number of Records for each L06 Age broken down by L00_Spacetype_Grouped. Color shows % of Total Number of Records by L00_Spacetype_Grouped.
Percents are based on each column of the table.

Figure 2.1c - Question 6: "Your age"

2.2 - Educational Background of Makerspace Leaders

Leaders in makerspaces come from a wide range of educational backgrounds with degrees ranging from the hard sciences to the fine arts, and a few from the healthcare sector. The most common degree is in Engineering, closely followed by Education, Computer Sciences, and then the Performing and Visual Arts. Leaders from the most frequently represented degrees filled all types of roles within makerspaces and were not limited to a single department or role category.

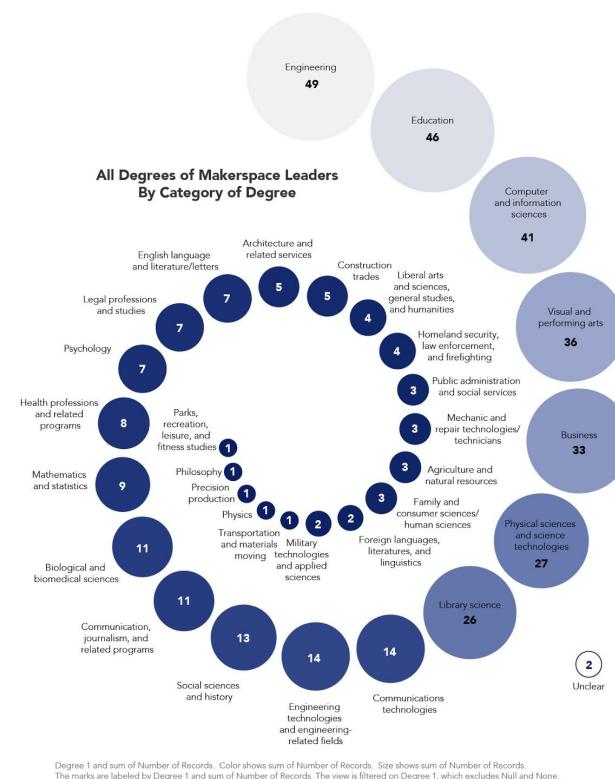


Figure 2.2a - Question 9: "If you have received a degree or certification(s), what field did you receive it/them in?"

Degree vs. Roles in the Makerspace

Degree Categories	Management Operations	Sales/Marketing	Education	Director or Above	Board/Governance
Agriculture and natural resources	2	1	3	1	4
Architecture and related services	1	2	5	4	4
Biological and biomedical sciences	6	5	10	17	14
Business	8	4	4	6	4
Communication, journalism, and related programs	6	3	5	8	5
Communications technologies	6	3	5	15	30
Computer and information sciences	28	10	19	27	32
Construction trades	5	3	5	1	2
Education	13	7	28	27	11
Engineering	21	9	16	25	32
Engineering technologies and engineering-related fields	4	2	4	8	1
English language and literature/letters	4	3	4	1	1
Family and consumer sciences/human sciences	2	1	2	1	1
Foreign languages, literatures, and linguistics	1	1	1	1	1
Health professions and related programs	4	3	6	6	6
Homeland security, law enforcement, and firefighting	2	2	3	3	3
Legal professions and studies	4	2	4	3	2
Liberal arts and sciences, general studies, and humanities	3	2	3	1	1
Library science	15	3	17	5	4
Mathematics and statistics	7	2	6	4	5
Mechanic and repair technologies/technicians	1	1	1	2	1
Military technologies and applied sciences	1	1	1	1	2
Parks, recreation, leisure, and fitness studies	1	1	1	1	1
Philosophy	13	4	12	12	17
Physical sciences and science technologies	1	1	1	1	1
Physics	1	1	1	1	1
Precision production	1	1	1	1	1
Psychology	1	1	2	4	1
Public administration and social services	2	1	1	3	2
Social sciences and history	10	6	9	5	6
Transportation and materialsl moving	1	1	1	1	1
Unclear	21	12	14	20	12
Visual and performing arts	21	12	14	20	12

Sum of Number of Records broken down by L12 Role Sales Mark etng Promotions vs. Degree 1. Color shows sum of Number of Records. The marks are labeled by sum of Number of Records. The view is filtered on Degree 1, which excludes Null and None.

Figure 2.2b Question 9: "If you have received a degree or certification(s), what field did you receive it/them in? And Question 12: Select the title or titles that most closely match your leadership role(s)"

2.3 - The Professional Background of Makerspace Leaders

Where do makerspace leaders come from?

What is their professional background?

Similar to the degree categories of leaders, the professional background makerspace leaders is also highly varied.

It does not appear that a specific professional background is required to obtain a leadership role in a makerspace. However when looking at the professional backgrounds of leaders according to the type of space, we find that **Independent Non-Profits** maintain the most varied backgrounds, followed by **Independent For-Profits**.

Unsurprisingly, **Institution-Based** leaders represent the lowest diversity in backgrounds with nearly 50% of all leaders having a background in Education or Library Occupations.

	Independent Non-Profit	Independent For-Profit	Institution-Based	Grand Total
Architecture and Engineering Occupations	36	3	14	53
Arts, Design, Entertainment, Sports, and Media Occupations	36	11	23	70
Building and Grounds Cleaning and Maintenance Occupations	4			4
Business and Financial Operations Occupations	13	8	3	24
Community and Social Service Occupations	6	1	1	8
Computer and Mathematical Occupations	64	5	7	76
Construction and Extraction Occupations	7	3		10
Educational Instruction and Library Occupations	27	13	74	114
Farming, Fishing, and Forestry Occupations	2	1	3	6
Food Preparation and Serving Related Occupations	5	3	1	9
Healthcare Practitioners and Technical Occupations	3	1	1	5
Healthcare Support Occupations	4	1	1	6
Installation, Maintenance, and Repair Occupations	16	4		20
Legal Occupations	3			3
Life, Physical, and Social Science Occupations	8	1	3	12
Management Occupations	32	7	7	46
Military Specific Occupations	3		1	4
Office and Administrative Support Occupations	8	6	2	16
Other	17	4	4	25
Personal Care and Service Occupations	1	1		2
Production Occupations	12	7	2	21
Protective Service Occupations			1	1
Sales and Related Occupations	8	3	2	13
Transportation and Material Moving Occupations	1	2		3
Grand Total	316	86	149	

Figure 2.3a - Question 10: "What is your professional background? (These are from the Bureau of Labor Statistics so that our data can match up with theirs.)"

2.4 - Leadership Questionnaire

The leadership questionnaire was adapted from Mindtools.com and is a self-assessment that measures leadership skills in three main areas, Transformational Leadership, Emotional Intelligence, and Leadership Traits/Abilities.

The Leadership Questionnaire results show that makerspace leaders highly value team morale and empathy, and exemplify confidence in overcoming obstacles. **Over 95% of makerspace leaders consider the “time and effort spent on team morale” to be worthwhile.**

Makerspace leaders exhibited few deficits in their leadership skills. However one area of struggle appears to be in relation to having unreasonable expectations of those they work alongside, with over 60% of leaders acknowledging that they sometimes, often, or almost always, “expect only top-notch results from people”.

Leadership Questionnaire

% of total responses for each question, null values excluded

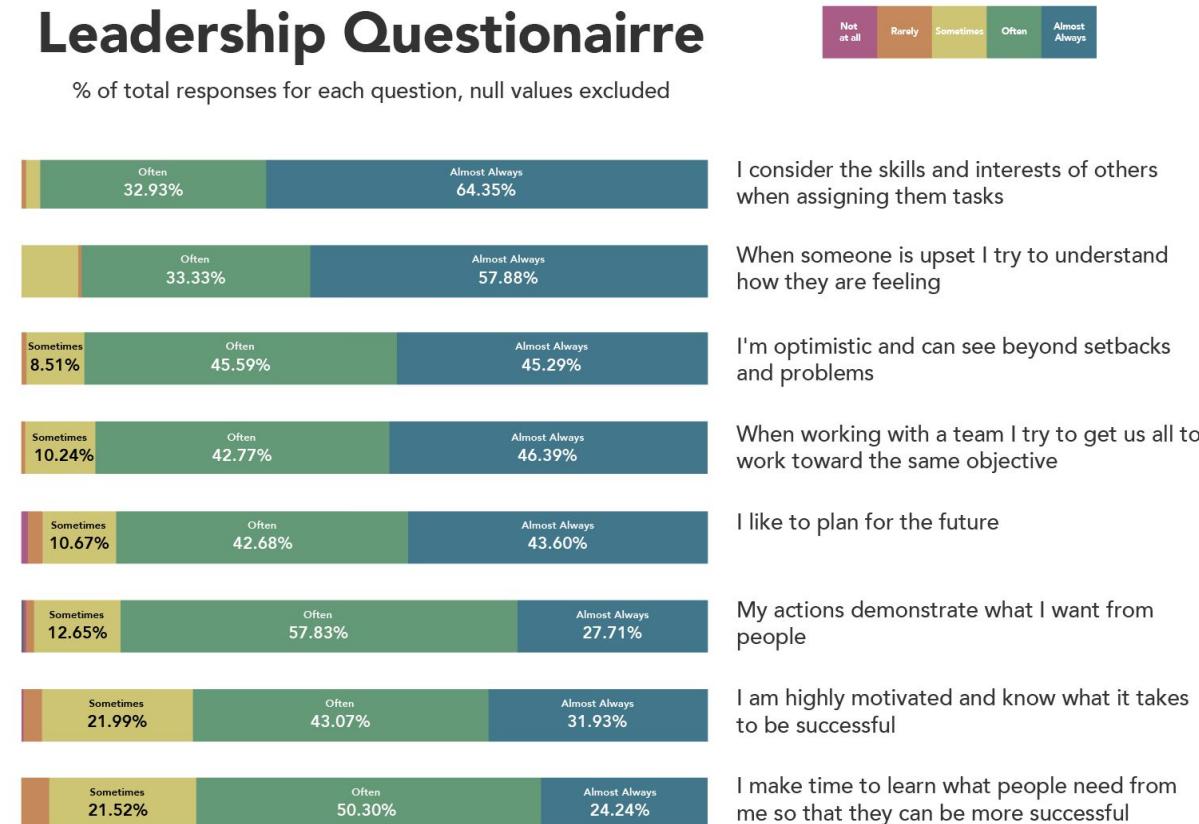


Figure 2.5a Question 11: "Please rate the following statements regarding your makerspace role(s)"

Leadership Questionnaire

% of total responses for each question, null values excluded

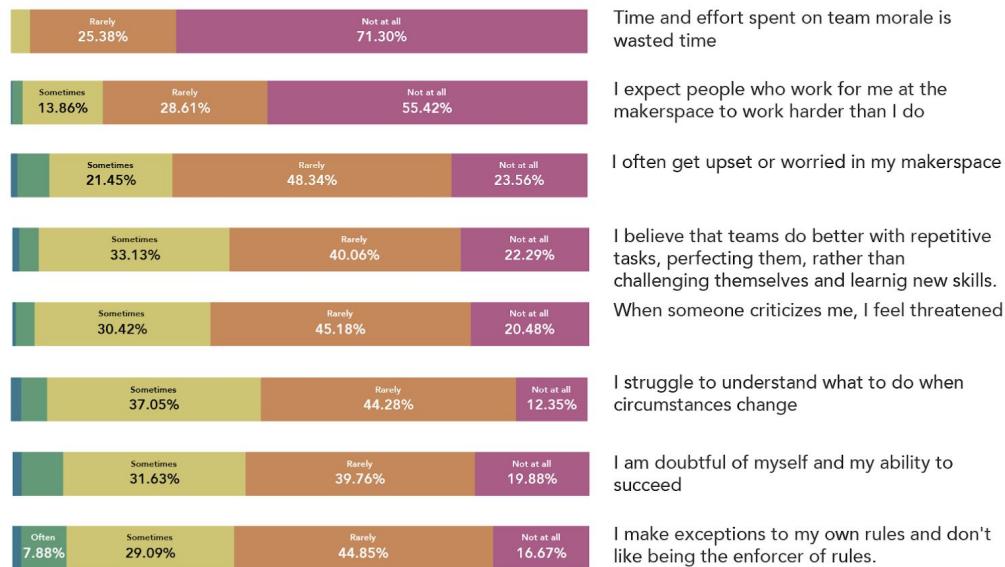


Figure 2.5b - Question 11: "Please rate the following statements regarding your makerspace role(s)"

Leadership Questionnaire

% of total responses for each question, null values excluded

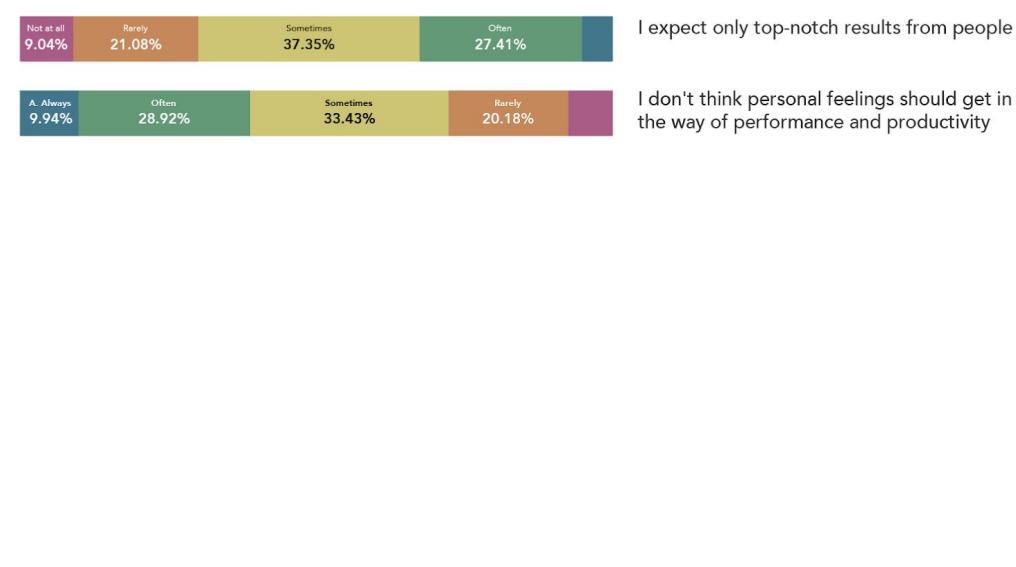


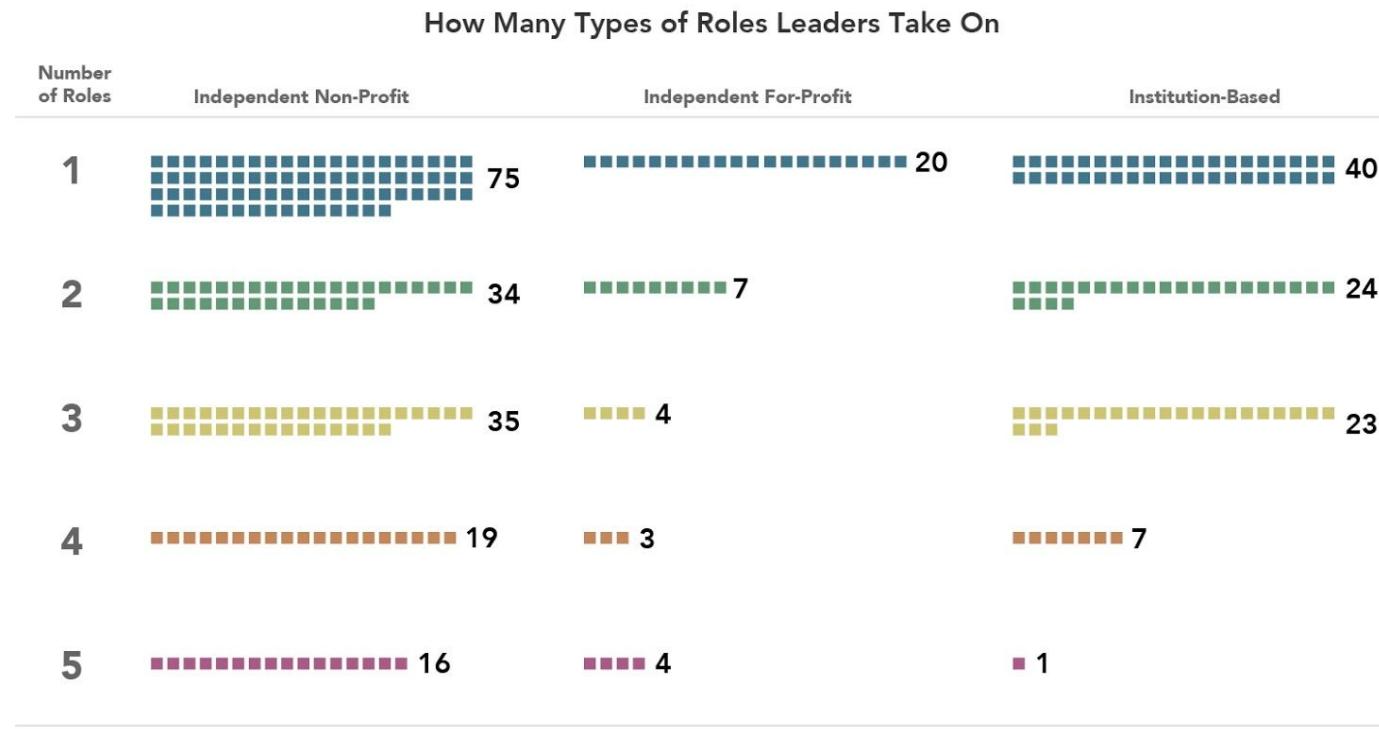
Figure 2.5c - Question 11: "Please rate the following statements regarding your makerspace role(s)"

2.5 - Roles of Leaders

Leaders identified the roles they filled within their makerspace, including the roles that were not part of their official job description, as we also queried whether or not a leader was serving as a volunteer. The roles fit within five main categories: management/operations, sales/marketing, education, director or above, and board/governance. Of note: Nearly half of the survey participants are part of their Makerspace's Board or Governance structure.

Leadership Role Categorization				
Management/Operations	Sales/Marketing	Education	Director/Above	Board/Governance
162 (48.8%)	78 (23.5%)	143 (43.1%)	143 (43.1%)	150 (45.2%)
Administrative Assistant Vol. Coordinator / Vol. Director Accountant/Bookkeeper IT Support Data entry/maintenance Network/Security Lead Website manager Software manager Community Liaison Safety Captain Shop Captain or Steward Team Leader Keyholder Coordinator Manager Area Lead or Area Captain Outside maintenance / groundskeeper	Tour guide Marketing Coordinator Designer PR Specialist / PR Director Historian Videographer / Event Photographer Social Media Manager Newsletter Editor Community Calendar contact	Workshop Coordinator Instructor / Faculty Mentor / Coach Faculty Education Architect	Director of Education or Education Officer Director Director of Operations Executive Director Chief Executive Officer Owner/Operator Development Director Director of Human Resources Director of Marketing Chief Technology Operator	Board Member Committee Member Treasurer President Vice President Secretary Advisor to the Board Immediate Past-President Executive Board Member Founder or co-founder

Figure 2.5a - Question 12: "Select the title or titles that most closely match your leadership role(s)"



Maker Leaders are Filling Multiple Roles

Figure 2.5b shows, by type of space, the quantities of leaders who are performing duties in 1 role category vs 2 role categories and so-on. 50% of all leaders who participated in the leadership survey reported filling roles in more than one major category or department at their makerspace.

Data shows that **56%** of leaders in the **Independent Non-Profit** category, **39%** of leaders in the **Independent For Profit** category and **55%** of leaders in the **Institution-Based** category all report taking on roles in 2 or more of the categories specified.

Figure 2.5b - Question 12: "Select the title or titles that most closely match your leadership role(s)"

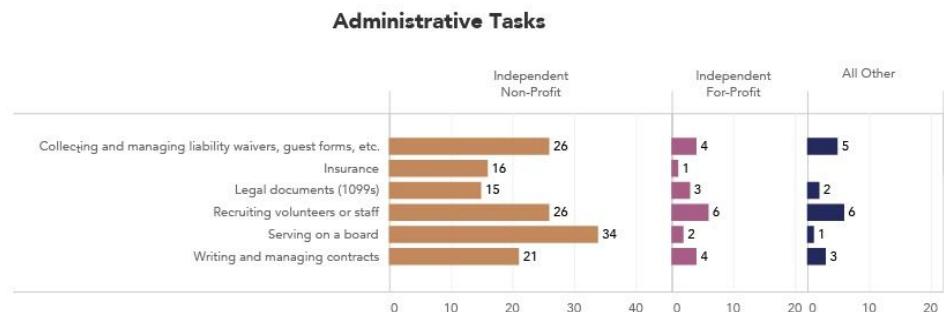


Figure 2.5c - Question 13: "Select all that apply to the tasks you do for your makerspace, even if they are outside of your assigned role."

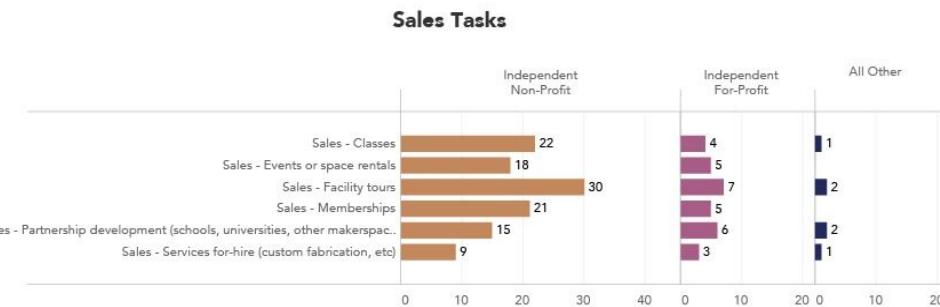


Figure 2.5d - Question 13: "Select all that apply to the tasks you do for your makerspace, even if they are outside of your assigned role."

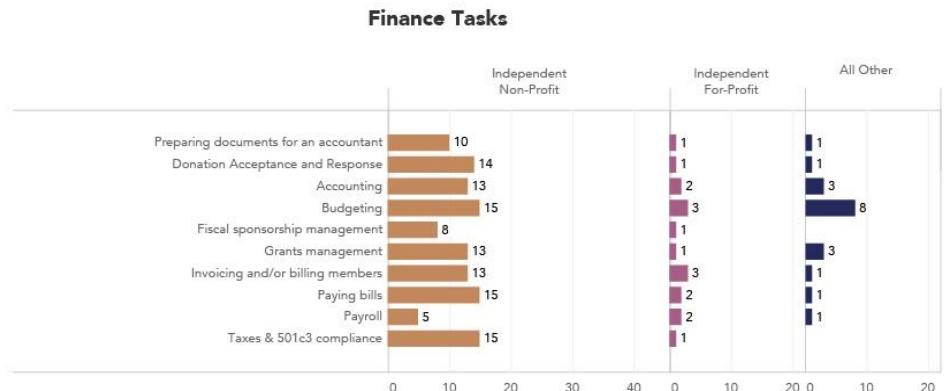


Figure 2.5e - Question 13: "Select all that apply to the tasks you do for your makerspace, even if they are outside of your assigned role."

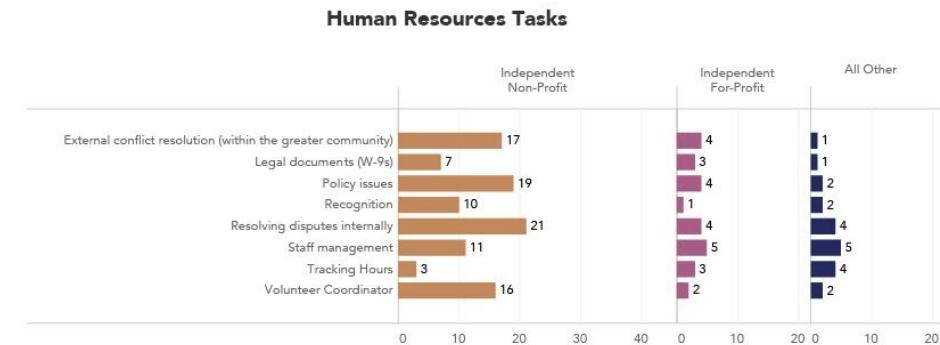


Figure 2.5f - Question 13: "Select all that apply to the tasks you do for your makerspace, even if they are outside of your assigned role."

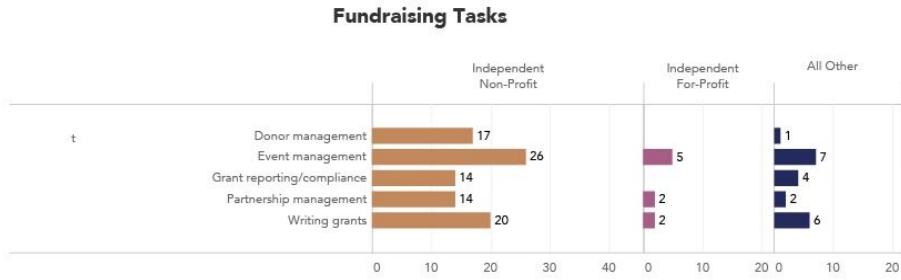


Figure 2.5g - Question 13: "Select all that apply to the tasks you do for your makerspace, even if they are outside of your assigned role."

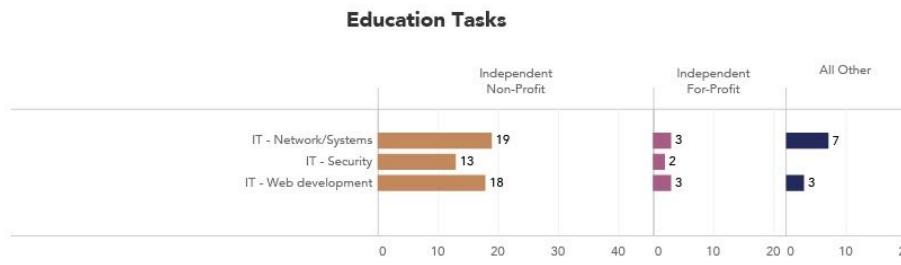


Figure 2.5h - Question 13: "Select all that apply to the tasks you do for your makerspace, even if they are outside of your assigned role."

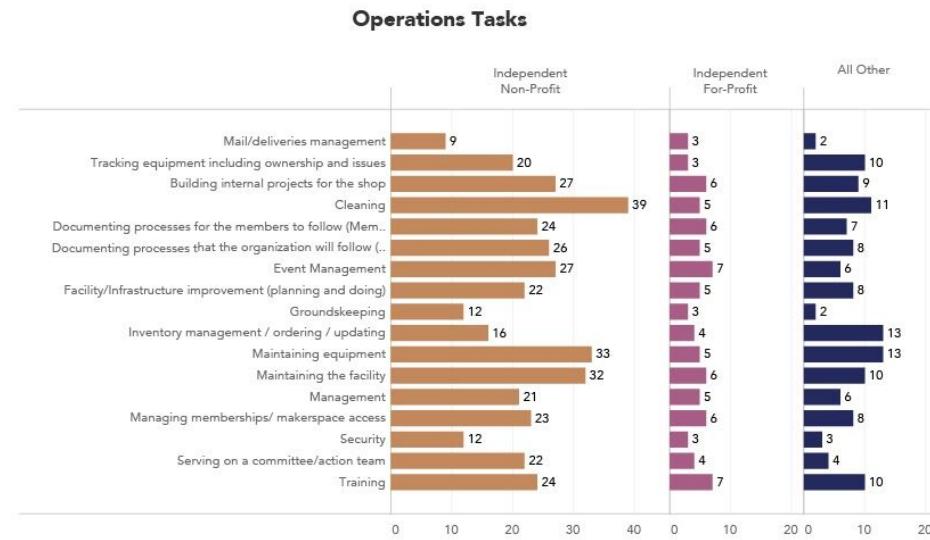


Figure 2.5i - Question 13: "Select all that apply to the tasks you do for your makerspace, even if they are outside of your assigned role."

2.6 - A Workplace and a Place to Volunteer

Some makerspaces operate as all-volunteer organizations (AVOs), while others have paid employees or a mix of paid employees and volunteers.

The leadership survey asked a number of questions investigating a variety of topics related to employment status including hours worked, compensation, and direct reports.

Payment by Space Type (%)

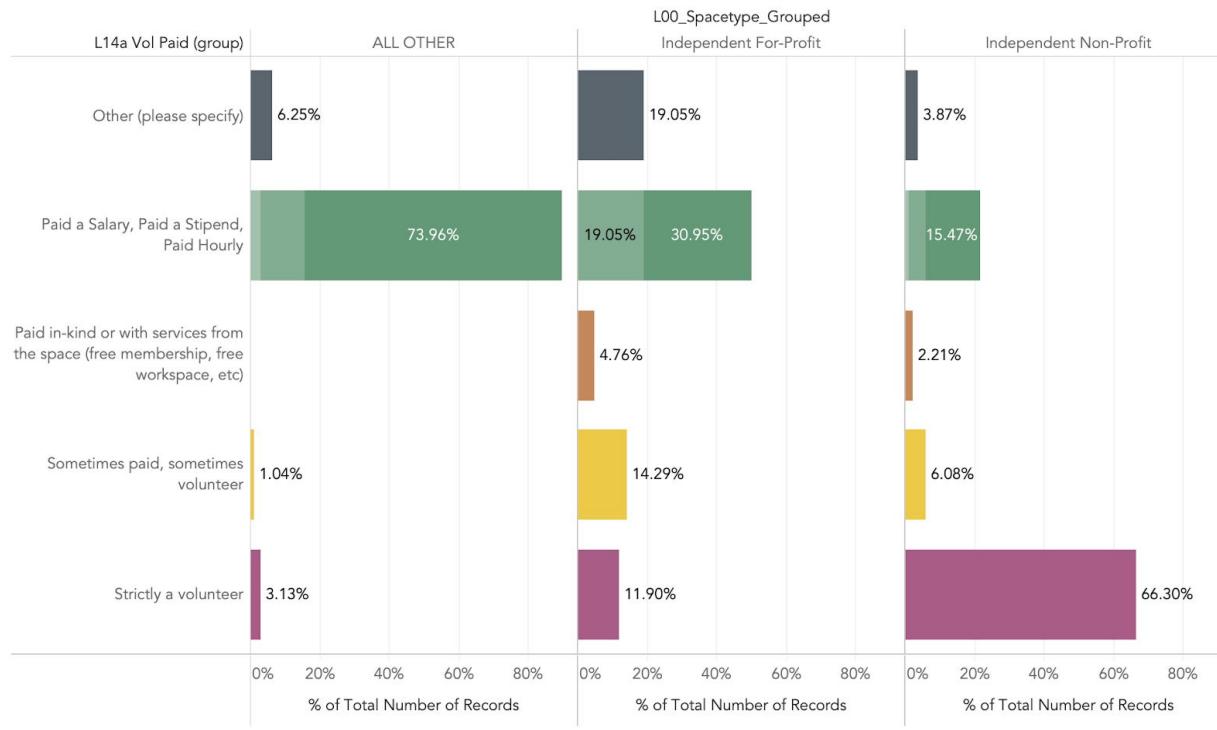


Figure 2.6a - Question 14: "Are you paid for your role or are you a volunteer?"

As shown in Figure 2.6b, when looking at all participants, approximately 40% of leaders operate in a strictly volunteer capacity, while 35% of participants are paid a monetary wage (Part time or full time). However as seen in figure 2.6c the Type of Space a leader works for influences the likelihood of being paid. Approximately **15%** of leaders from **Independent Non-Profit** makerspaces are paid to perform their duties, while **31%** percent of **Independent For-Profits** leaders are paid. The category **Institution-Based**, which is composed mainly of University, Library and K-12 makerspaces, pay approximately **74%** of those who represent a leadership role.

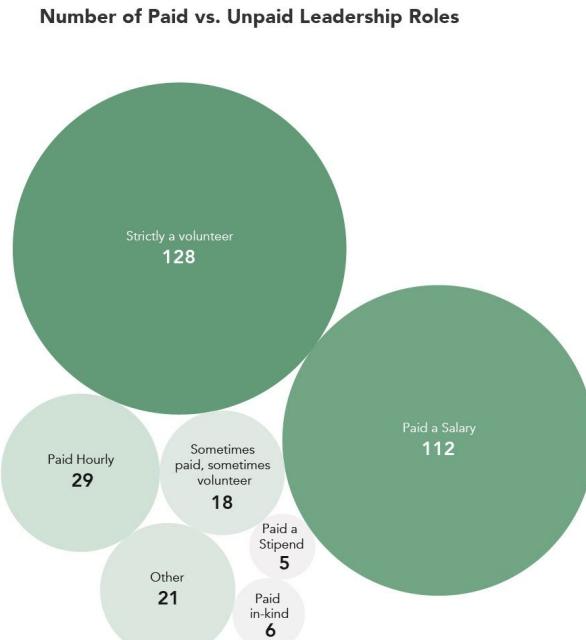


Figure 2.6b - Question 14: "Are you paid for your role or are you a volunteer?"

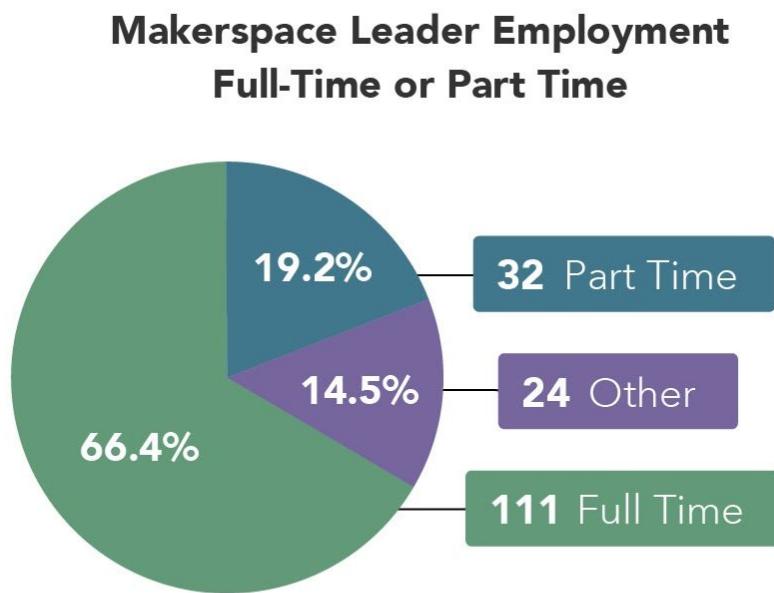
Are Leaders Paid or Do They Volunteer?

	Independent Non-Profit	Independent For-Profit	Institution-Based
Paid a Salary	15%	31%	74%
Paid a Stipend	1%		3%
Paid Hourly	5%	19%	13%
Sometimes paid, sometimes volunteer	6%	14%	1%
Paid in-kind	2%	5%	
Strictly a volunteer	66%	12%	3%
Other	4%	19%	6%

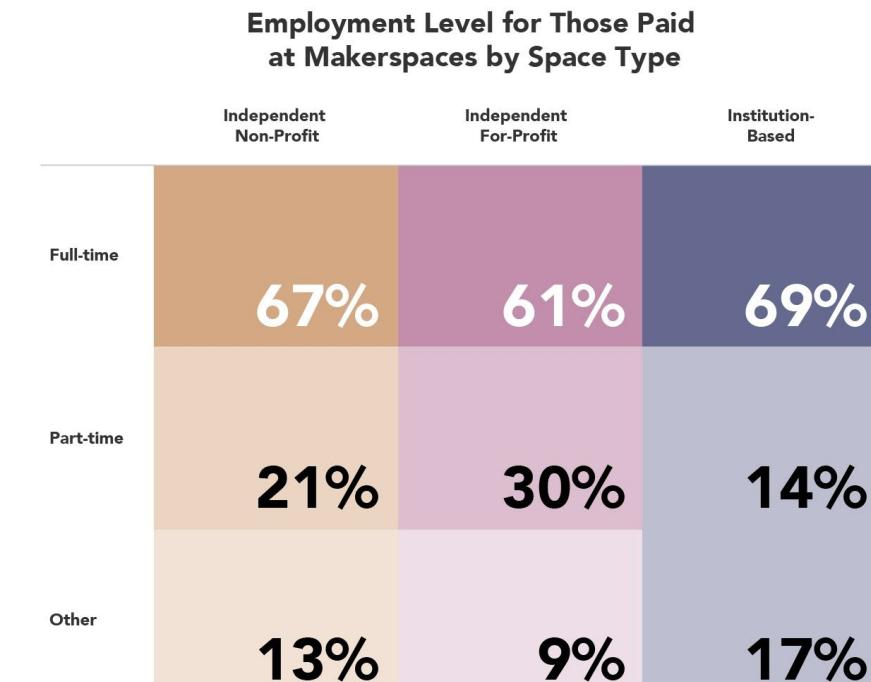
% of Total Count of L14a Vol Paid broken down by L00_Spacetype_Grouped vs. L14a Vol Paid. Color shows % of Total Count of L14a Vol Paid. The marks are labeled by % of Total Count of L14a Vol Paid. The view is filtered on L14a Vol Paid, which excludes Null.

Figure 2.6c - Question 14: "Are you paid for your role or are you a volunteer?"

Of those who are employed at their makerspace, the majority of leaders reported being employed full-time. When looking at employment status according to the type of space, the distribution of full-time, part time, and other is fairly consistent among all three makerspace categories with approximately 66% being employed full time, and 33% being employed part-time or under some other employment arrangement.



% of Total Number of Records. Color shows details about L15a Full Part.
Size shows % of Total Number of Records. The marks are labeled by % of
Total Number of Records. The view is filtered on L15a Full Part, which keeps
Full-time, Other and Part-time. Percents are based on the whole table.



% of Total Count of L15a Full Part broken down by L00_Spacetype_Grouped vs. L15a Full Part. Color shows
% of Total Count of L15a Full Part. The marks are labeled by % of Total Count of L15a Full Part. The view is
filtered on L15a Full Part, which keeps Full-time, Other and Part-time.

Figure 2.6d - Question 15: "If you are employed at your makerspace is it full-time or part-time."

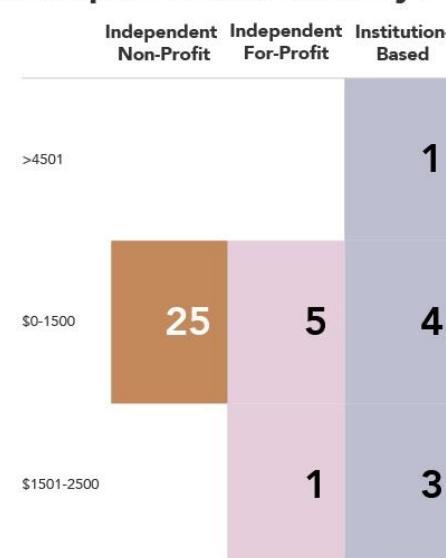
Figure 2.6e - Question 15: "If you are employed at your makerspace is it full-time or part-time."

The survey provided three options for leaders to share their compensations, hourly, monthly, and annual salary. The average hourly wage for a leader at both **Independent Non-Profits** and **Independent For-Profit** spaces is around \$20/hr, while the average hourly wage for a leader working within a makerspace category from the **Institution-Based** category was slightly higher around \$24/hr. Leaders at **Independent Non-Profits** and **For-Profits** who reported being paid monthly pay average **\$1,150/mo** for **Non-Profit** and **\$1,264/mo** for **For-Profits**. Leaders from the **Institution-Based** category averaged more than twice as much at **\$2,825/mo**. Salaries also followed a similar trend with **Independent Non-Profit** and **For-Profit** leaders earning a fairly similar wage, while leaders from **Institution-Based** category reported compensation rates that skew significantly higher. Regardless of the method of compensation, leaders from makerspaces in the **Institution-Based** category are compensated at the highest rates..

Makerspace Leader Hourly Pay



Makerspace Leader Monthly Pay



Makerspace Leader Annual Salaries

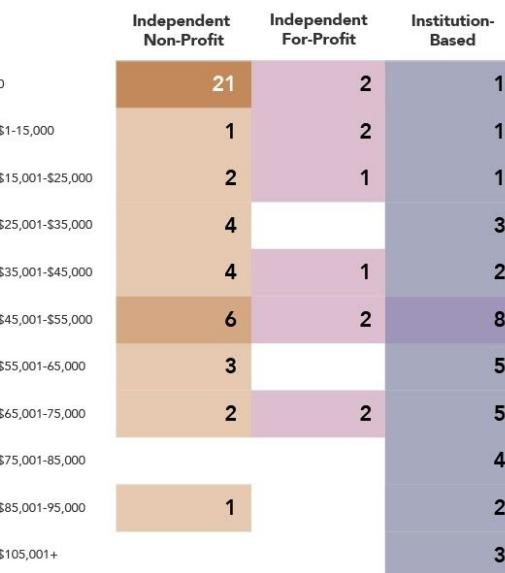


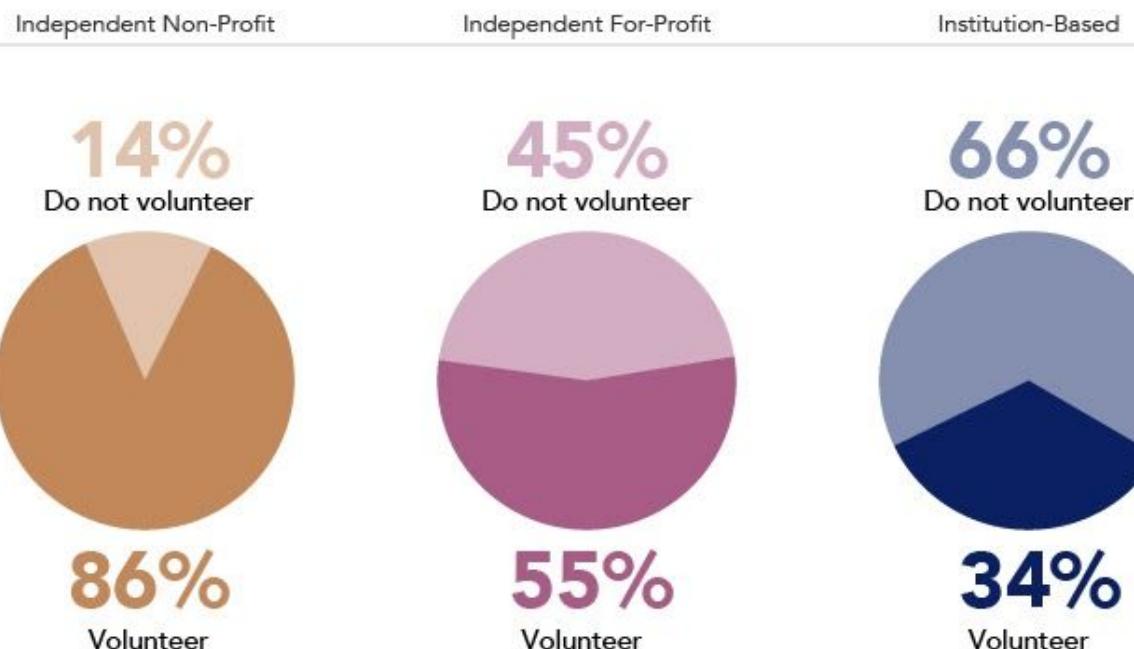
Figure 2.6f, g, h - Question 16: "Are you willing to share how much you get paid for the work you do in your makerspace? If so, what is your pay rate in USD? Answer the one that applies to your situation. (We completely understand if you choose not to answer this question. Please continue with the rest of the survey.)"

Volunteerism at Makerspaces

Data shows that at least a third of all leaders contribute volunteer-hours at their at a makerspace no matter what category a makerspace falls into, shown in Figure 2.6i.

When evaluated according to the type of space, the highest percentage of leaders who contribute volunteer-hours is at **Independent Non-Profits** at 86%. The second highest volunteer rate is at **Independent For-Profits** with 55% of leaders contributing volunteer hours, followed by leaders in the **Institution-Based** category at 34%.

How Many Leaders Volunteer?



L18 Hours Worked Volunteer (group) (color) broken down by L00_Spacetype_Grouped.
The view is filtered on L18 Hours Worked Volunteer (group).

Figure 2.6i - "On average, how many hours a week do you volunteer (unpaid) at the makerspace? (Enter 0 if none)"

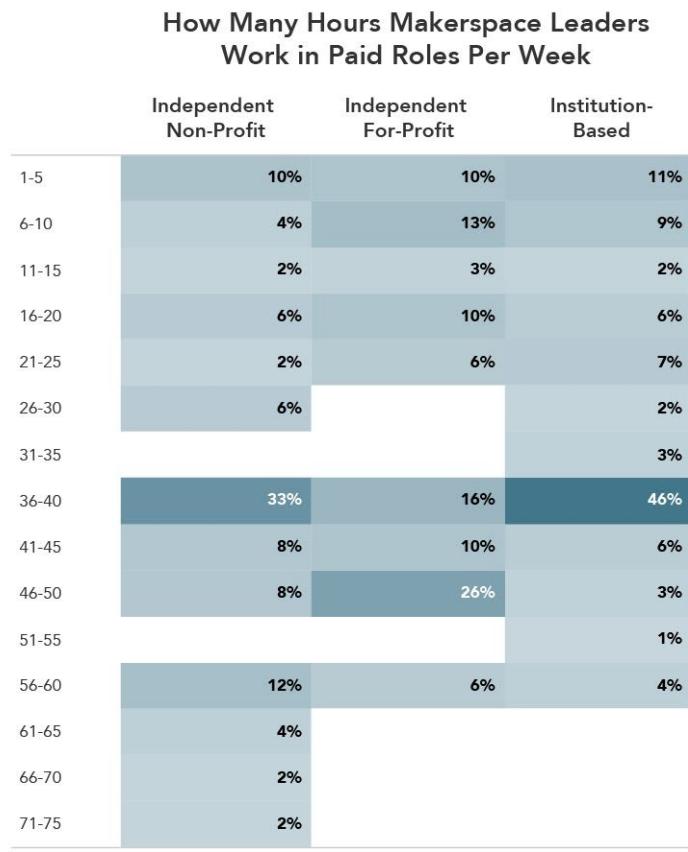


Figure 2.7j - Question 17: "On average, how many hours a week do you work (paid) at the makerspace? (Enter 0 if none)"

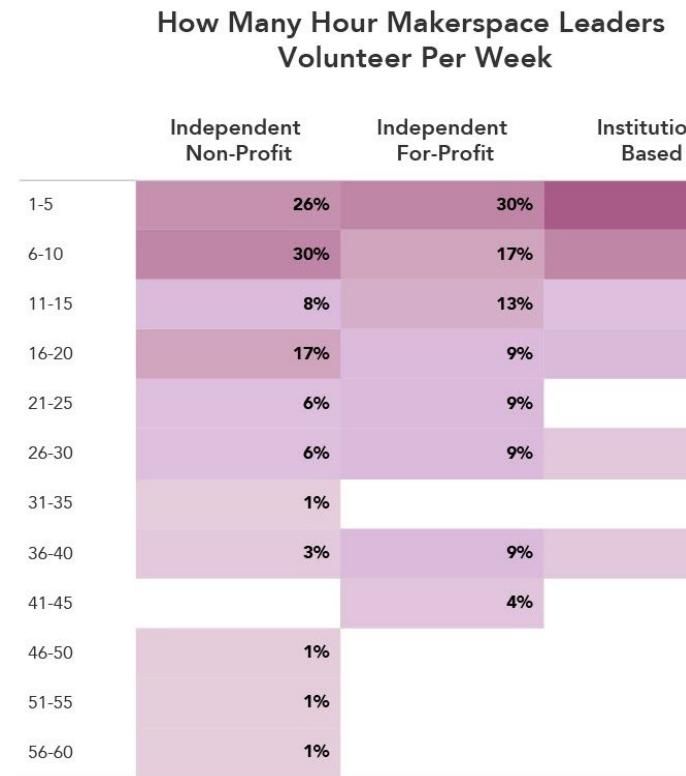
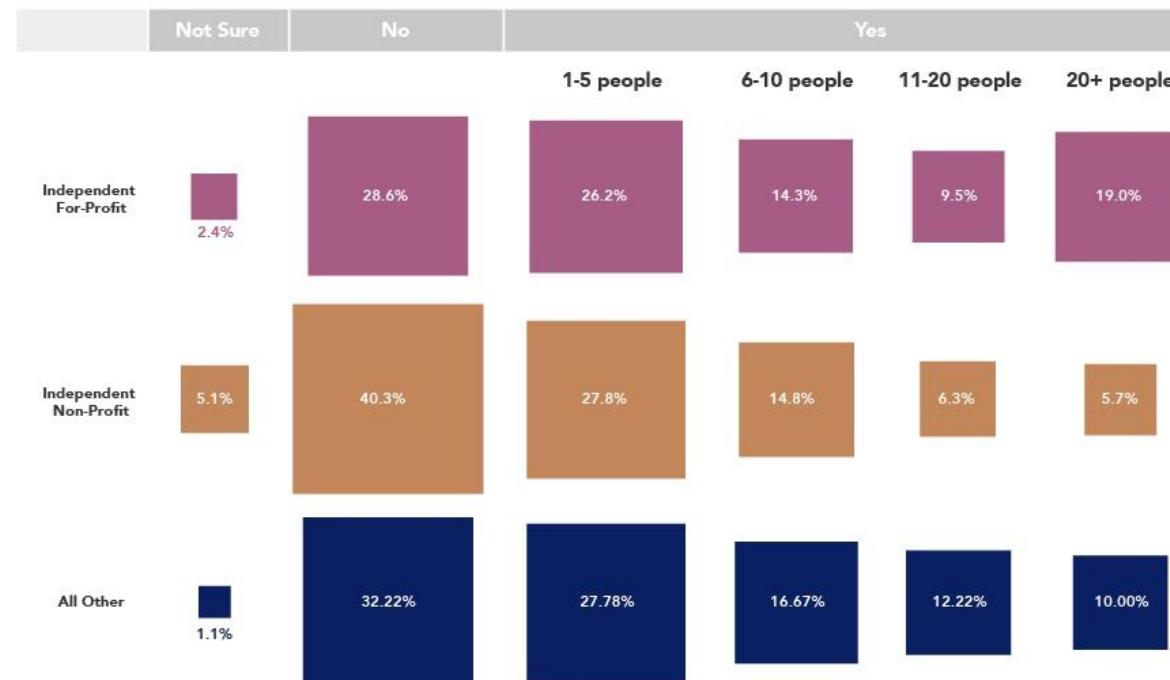


Figure 2.7k - Question 18: "On average, how many hours a week do you volunteer (unpaid) at the makerspace? (Enter 0 if none)"

Leadership roles don't always come with the responsibility of supervising others, but in many cases one or more staff members may report to a leader. In most cases as the number of direct reports increase the instances decrease. The exception to the rule is in the case of **Independent For-Profit** leaders who have 20+ people reporting to them.

Do People Report to You in Your Role as a Leader?



L00 Spacetype Grouped (color) and % of Total Number of Records (size) broken down by L22 Direct Reports vs. L00 Spacetype Grouped. The view is filtered on L22 Direct Reports, which excludes Null. Percents are based on each row of the table.

Figure 2.7I - Question 22: "Do people report to you in your role as a leader?"

2.7 - Our Goals and What We Value

A leader's priorities often reflect the mission of their makerspace and can also influence progress and achievement. Two questions in the survey were dedicated to better **understanding the goal priorities of makerspace leaders as well and their perception of their makerspaces progress towards those goals**. The goals ranked with the highest priority by leaders were: providing access to shared workspace and tools, building a community of like-minded makers, and education. Those three same goals are identified by leaders and showing high progress within their makerspace.



Figure 2.7k - Question 19: "How important are the following things to you in your role as a leader?"

Figure 2.7l - Question 21: "How would you rate your makerspace's progress toward achieving your goals in the following areas in the past year? (1 is no progress, 7 is exceptional progress)"



Figure 2.7m, n - Question 19: "How important are the following things to you in your role as a leader? vs Question 21: How would you rate your makerspace's progress toward achieving your goals in the following areas in the past year? (1 is no progress, 7 is exceptional progress)"



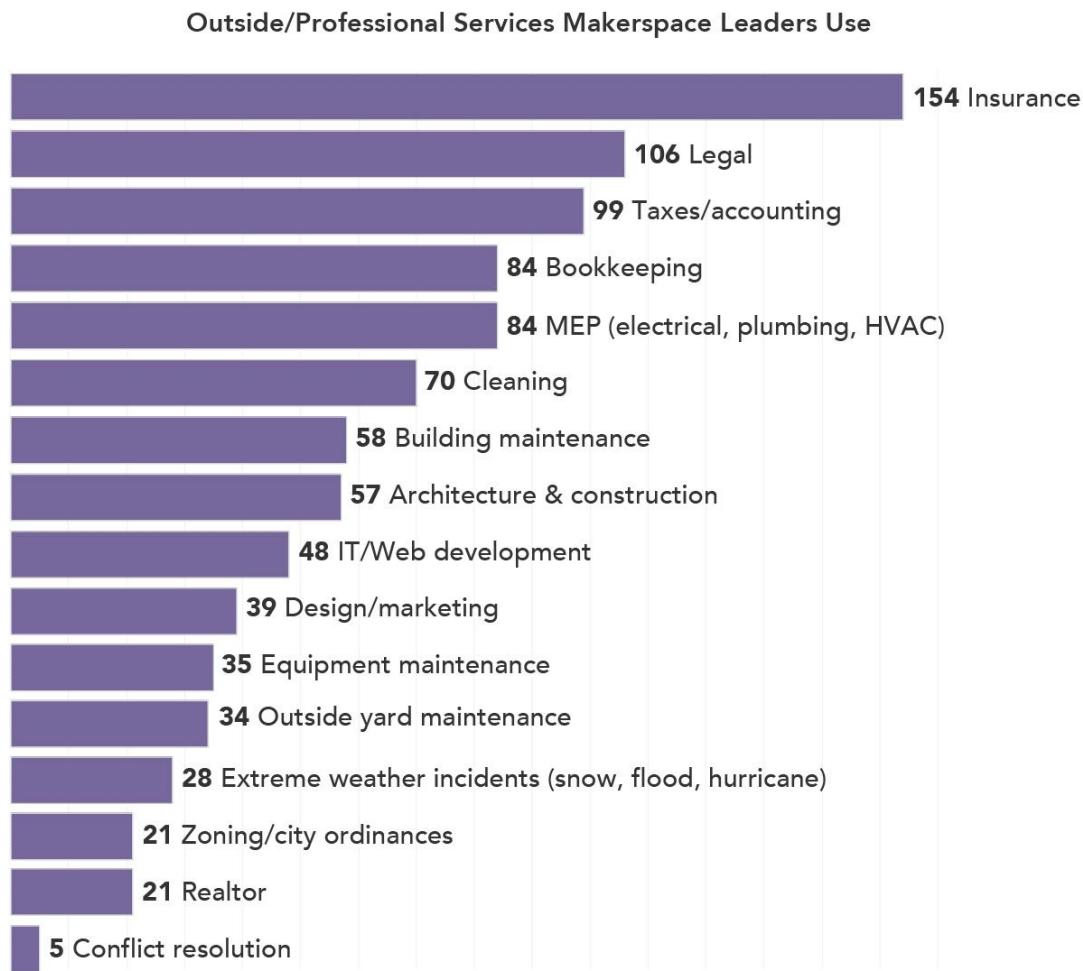
Figure 2.7o, p - Question 19: "How important are the following things to you in your role as a leader? vs Question 21: How would you rate your makerspace's progress toward achieving your goals in the following areas in the past year? (1 is no progress, 7 is exceptional progress)"



Figure 2.7q, r - Question 19: "How important are the following things to you in your role as a leader? vs Question 21: How would you rate your makerspace's progress toward achieving your goals in the following areas in the past year? (1 is no progress, 7 is exceptional progress)"



Figure 2.7s, t - Question 19: "How important are the following things to you in your role as a leader? vs Question 21: How would you rate your makerspace's progress toward achieving your goals in the following areas in the past year? (1 is no progress, 7 is exceptional progress)"



Outside Contractors at Makerspaces

Organizations often hire outside contractors to perform professional services that are not able to be met by the talent within the organization. Leaders were queried about which professional services were used by their makerspace.

The most frequently chosen services include **insurance**, **legal**, and **taxes** and accounting and the least frequently chosen include **conflict resolution**, **realtor**, and **zoning/ordinance**. Approximately 10% of leaders reported that they use outside services for equipment repair. The results are shown in Figure 2.7s.

Figure 2.7s - Question 20: "Do you use outside professional services/advice for your makerspace for any of the following?"



Figure 2.7t - Question 23: "If you could change one thing about your role in the makerspace, what would it be?"

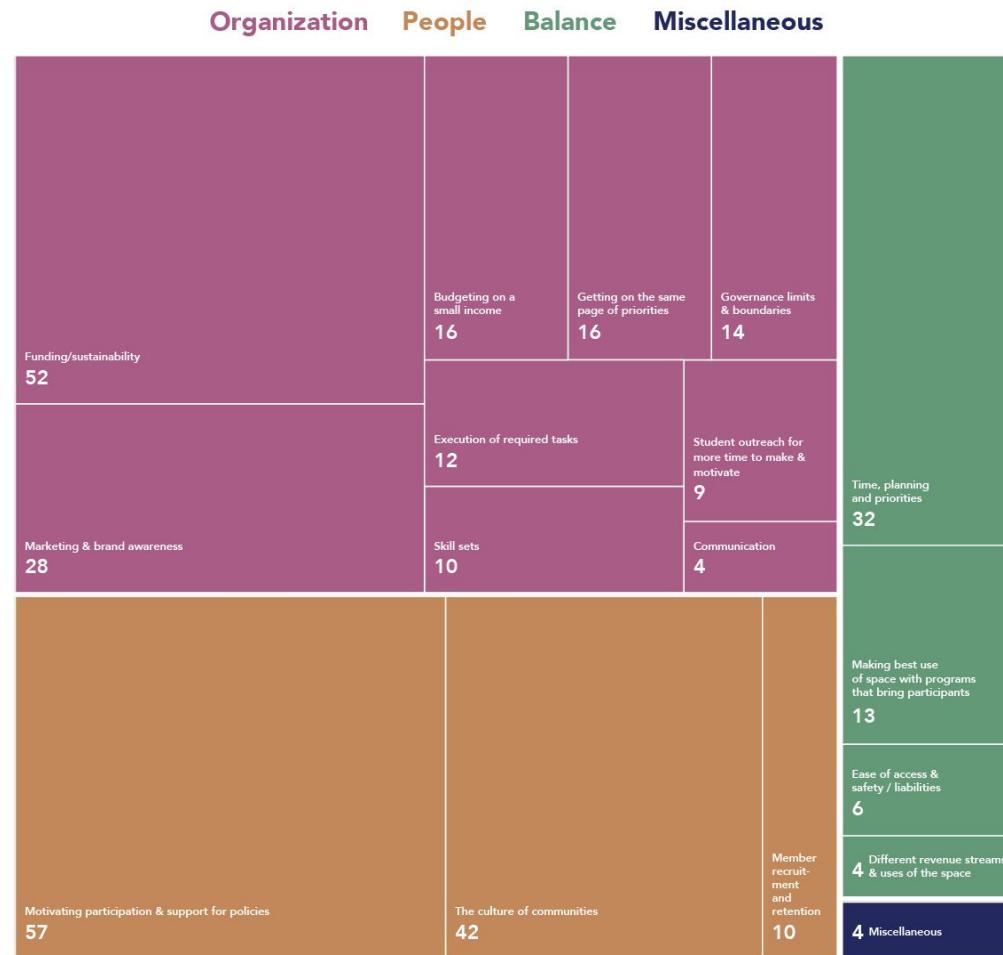
What Leaders are Most Proud of In Their Tenure



Sub Category and count of Count of Records. Color shows details about Category. Size shows count of Count of Records. The marks are labeled by Sub Category and count of Count of Records. The view is filtered on Category, which excludes No response.

Figure 2.7u - Question 24: "What are you most proud of in your tenure as a makerspace leader?"

The Hardest Thing About Making a Makerspace a Success



2.8 - What Leaders Want to Learn

Makerspaces are generally known to attract people who like to learn new skills and improve their capacity. The survey presented leaders with a list of areas in which they would be interested in receiving training. The top five areas that leaders are interested in training are budgeting/accounting, grant writing/fundraising, workshop planning, board development, and general marketing.

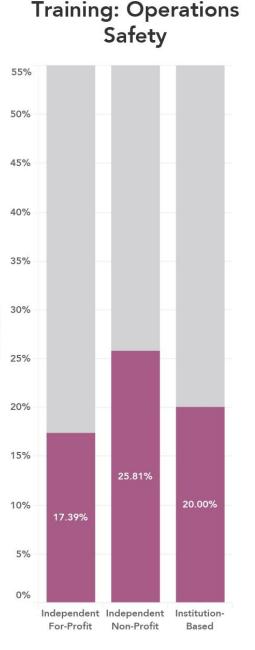
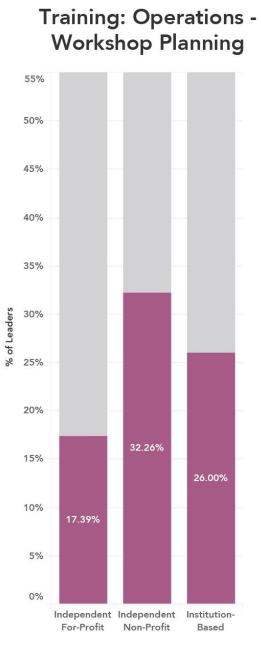
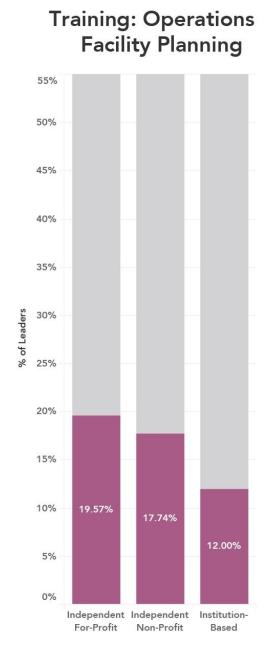
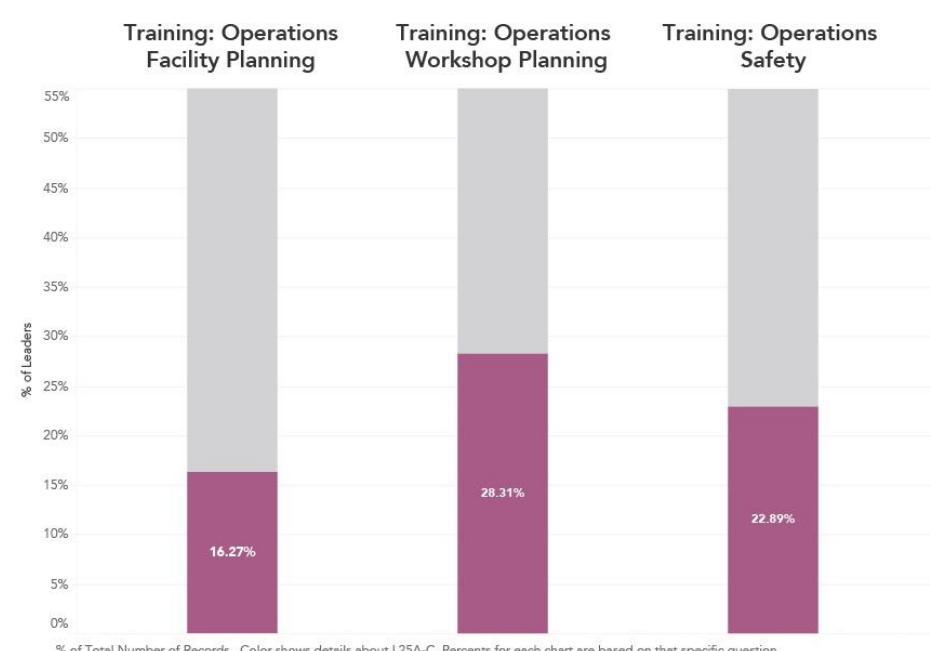


Figure 2.8a - Question 25: "If you could get training in any area or areas, what would be most useful to you?"

Figure 2.8b - Question 25: "If you could get training in any area or areas, what would be most useful to you?"

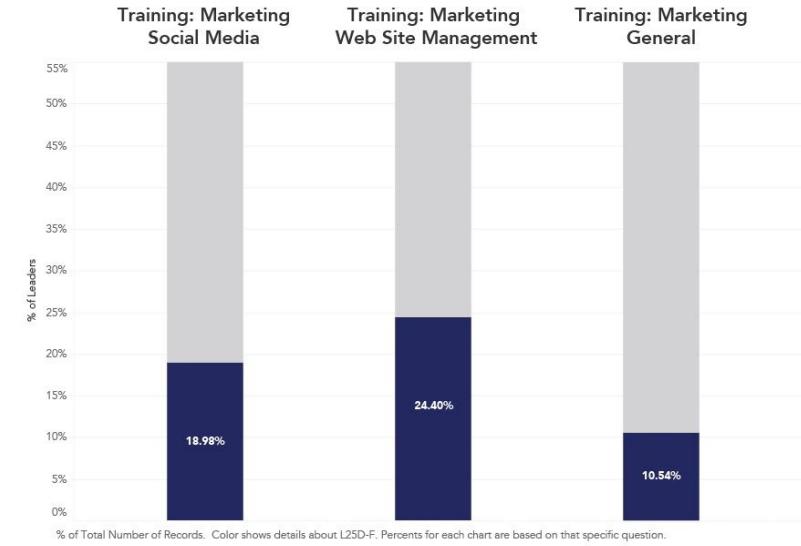


Figure 2.8c - Question 25: "If you could get training in any area or areas, what would be most useful to you?"

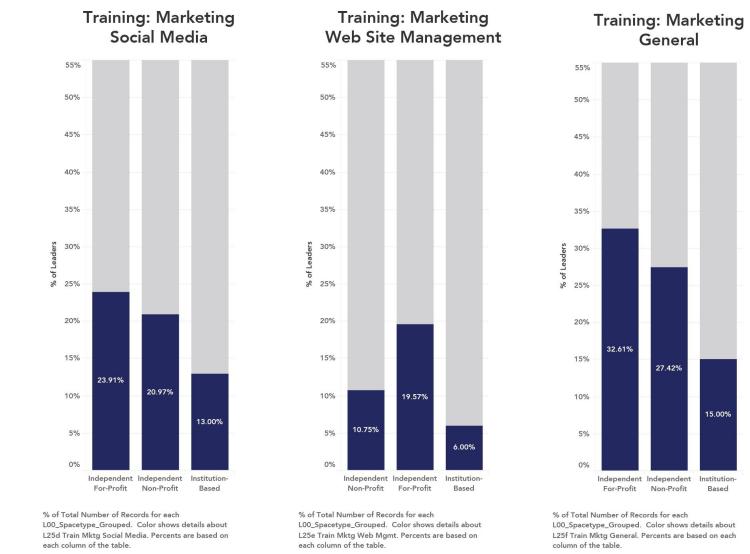


Figure 2.8d - Question 25: "If you could get training in any area or areas, what would be most useful to you?"

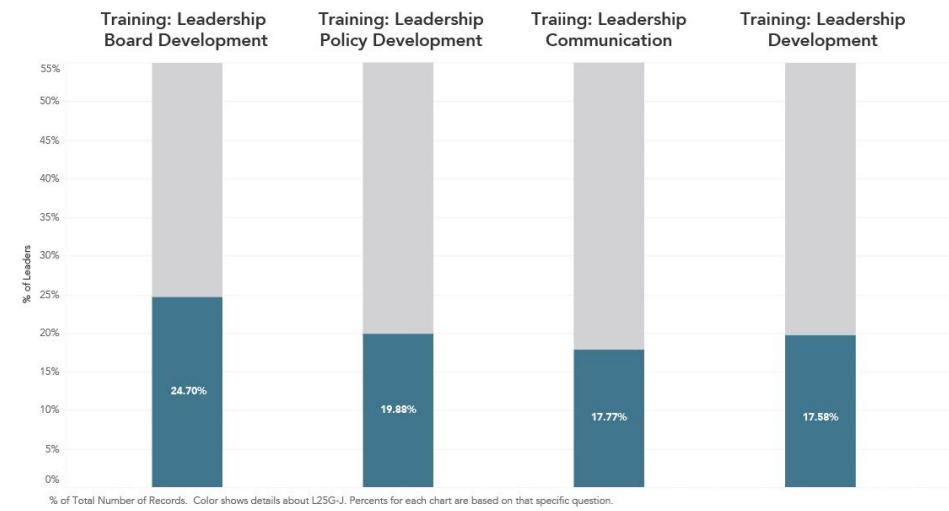


Figure 2.8e - Question 25: "If you could get training in any area or areas, what would be most useful to you?"

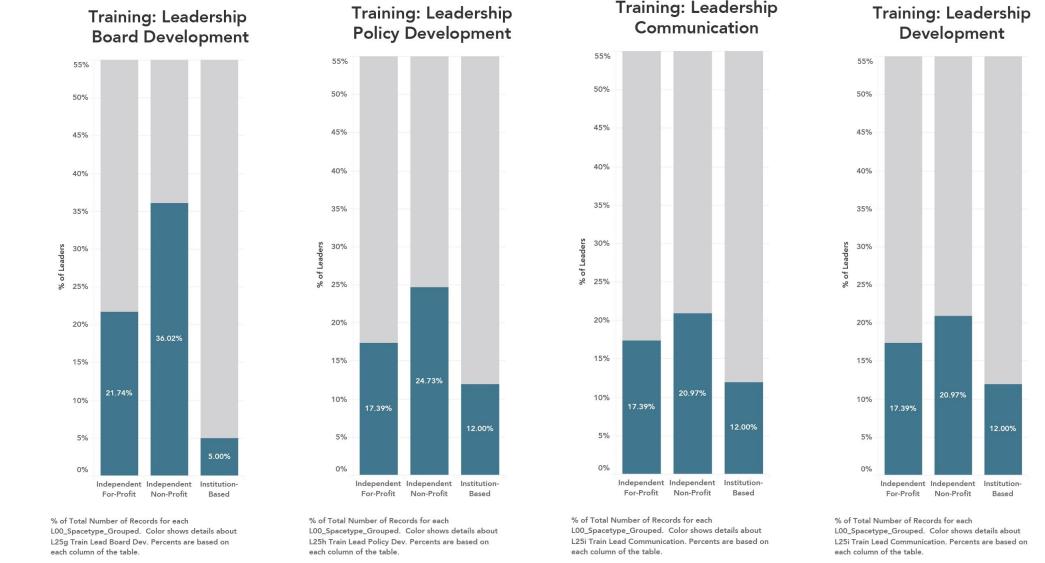


Figure 2.8f - Question 25: "If you could get training in any area or areas, what would be most useful to you?"

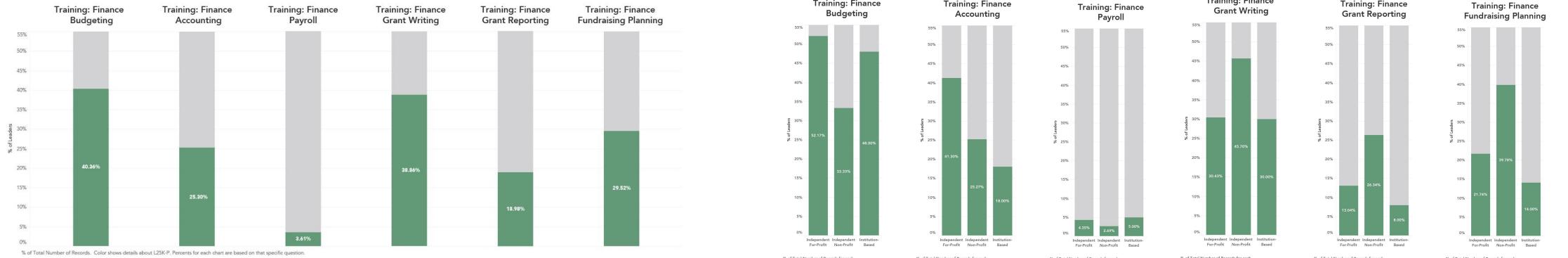


Figure 2.8g - Question 25: "If you could get training in any area or areas, what would be most useful to you?"



Figure 2.8h - Question 25: "If you could get training in any area or areas, what would be most useful to you?"



Figure 2.8i - Question 25: "If you could get training in any area or areas, what would be most useful to you?"

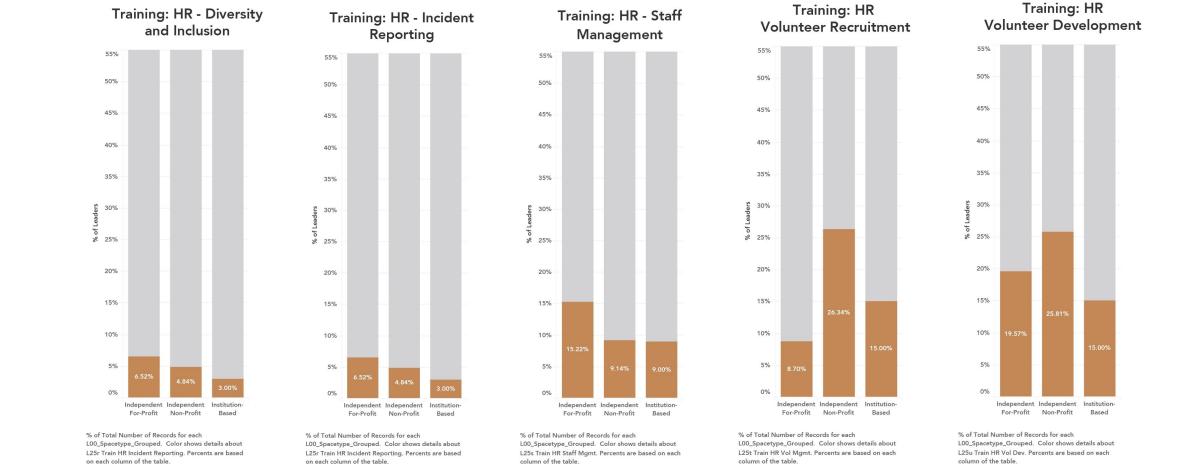


Figure 2.8j - Question 25: "If you could get training in any area or areas, what would be most useful to you?"

Strategic Planning is integral to an organization's ability to adapt and grow over time. Leaders from both **Independent Non-Profits** and the **Institution-Based** category most frequently reported meeting monthly or quarterly with their leadership teams to discuss strategy. **Independent For-Profit** leaders most frequently reported meeting for strategic planning on a weekly basis.

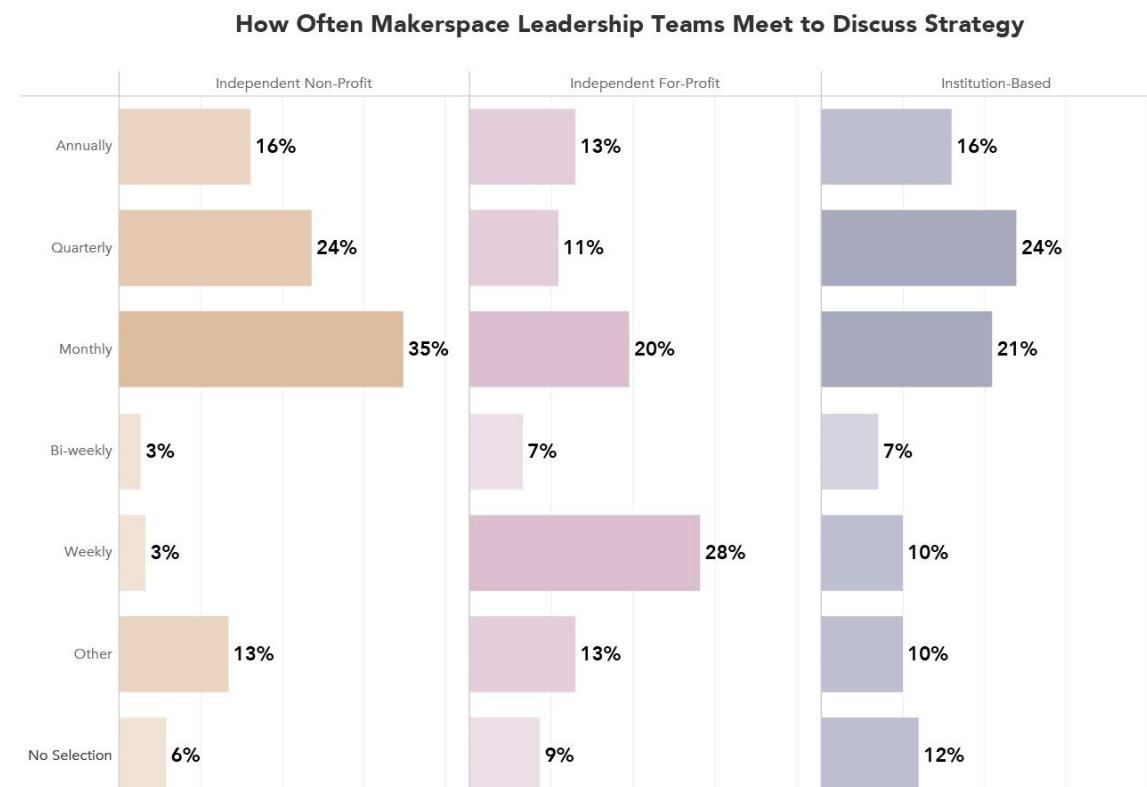


Figure 2.7c - Question 26: "How often does your leadership team meet to discuss strategic planning? (Big-picture planning)"

When it comes to discussing projects, progress and tasks, leaders from both **Independent Non-Profits** and the **Institution-Based** category most frequently reported meeting on a monthly basis, while the leaders from **Independent For-Profits** reported most frequently meeting on a weekly basis.

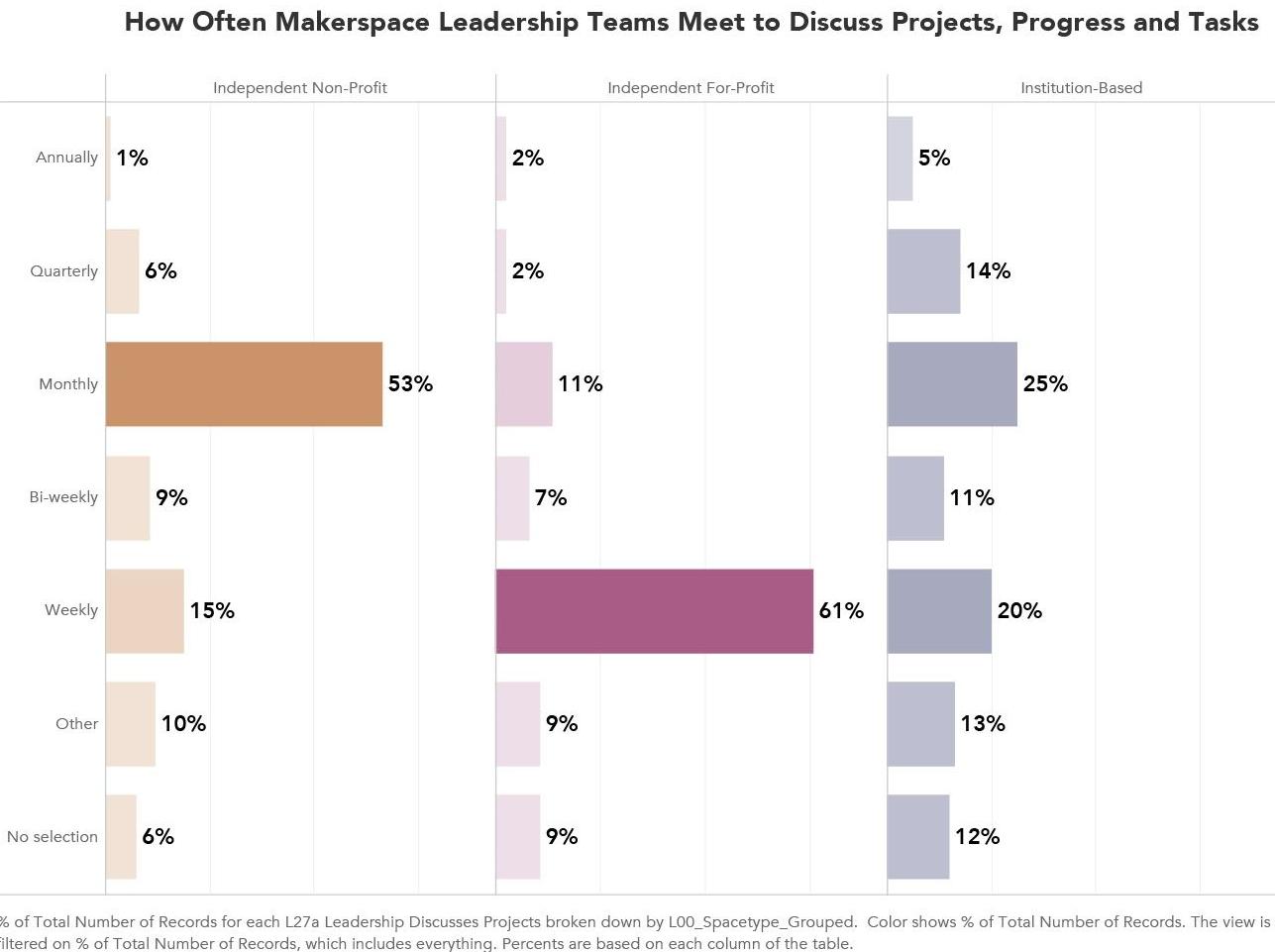


Figure 2.7c - Question 27: "How often does your leadership team meet to discuss projects, progress and tasks?"

Section 3

The Members of Makerspaces

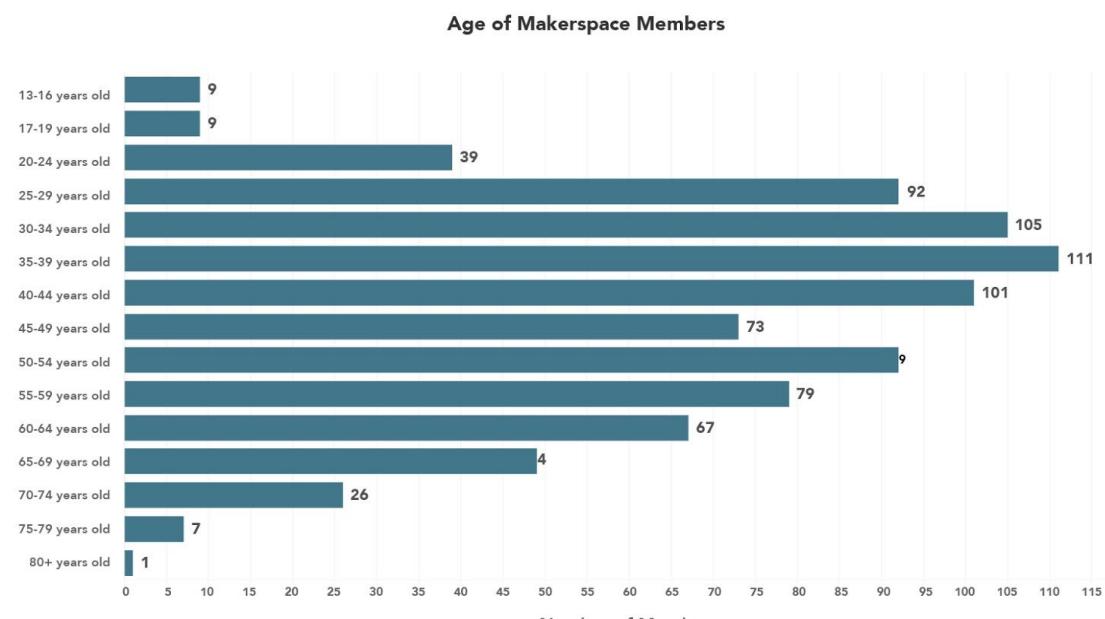
In the Membership Survey we asked makerspace members to provide a snapshot of the qualities, characteristics and perceptions of the membership within their makerspaces. Members are the core of any makerspace and play a large role in shaping the culture and sense of community within each space. Understanding the motivations and experiences of the population that our makerspaces serve can help us to meet the needs of our communities and ensure we are creating environments where people can learn, create and thrive.

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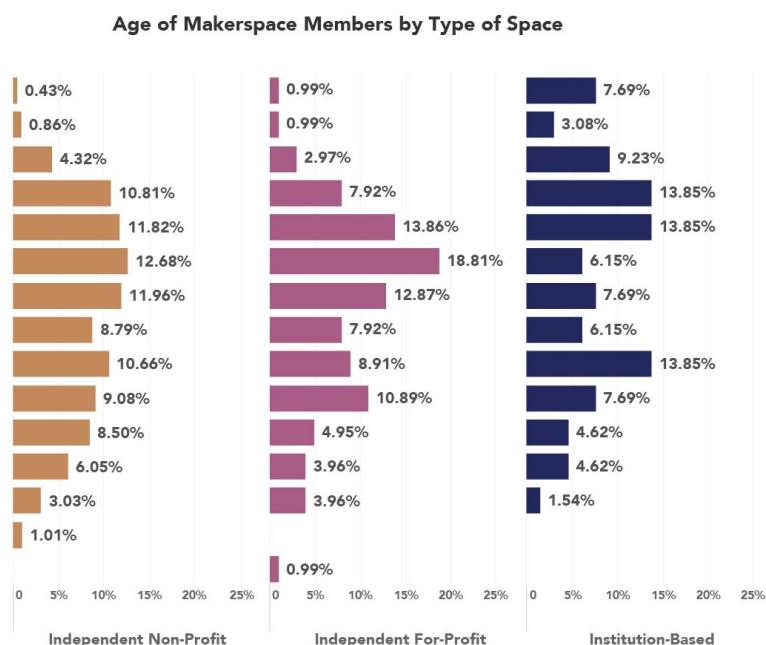
3.1 - Member Demographics	4
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3.1 - Member Demographics

The majority of members that voluntarily completed the survey in 2019 were between the ages of 25 and 64. Approximately 75% of respondents from **Independent Non-Profit** and **For-Profit Makerspaces** were males, while Institution-based makerspaces had close to an equivalent (50%) representation of male and female members. Note: If a respondent was a member of multiple makerspaces, we asked the respondent to answer the questions about their primary makerspace, or the one they spend the most time at. For safety and privacy reasons, makers under the age of 13 were not permitted to take the survey.



Sum of Number of Records for each M07 Age Range.



% of Total Number of Records for each M07 Age Range broken down by M00 Spacetype Grouped.
Percents are based on each column of the table.

Figure 3.1a - Question 7: Your Age Range

Figure 3.1b - Question 7: Your Age Range

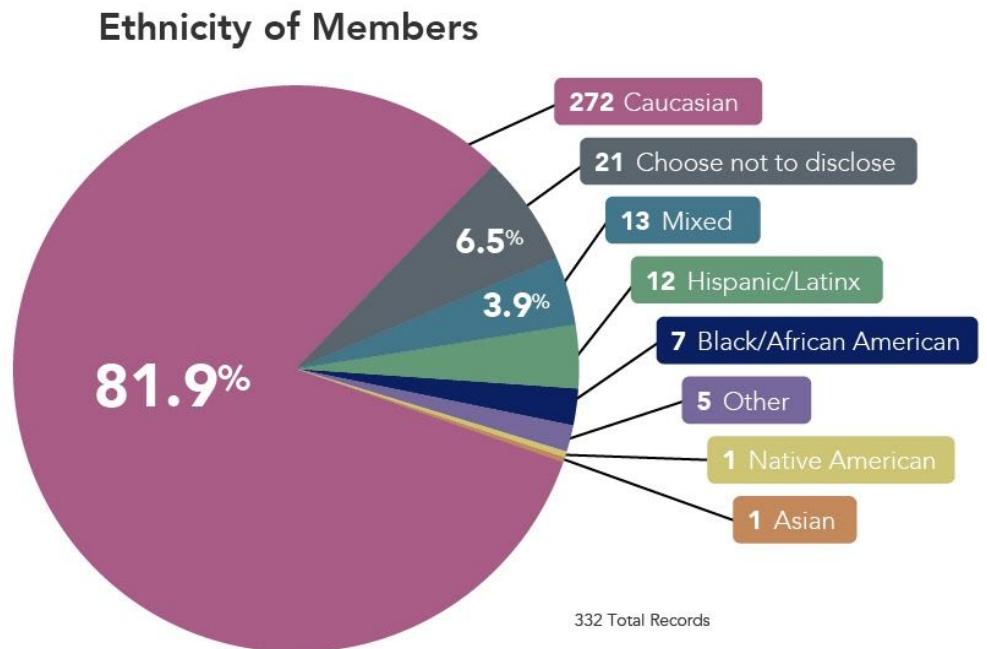


Figure 3.1c - Question 10: Your Ethnicity

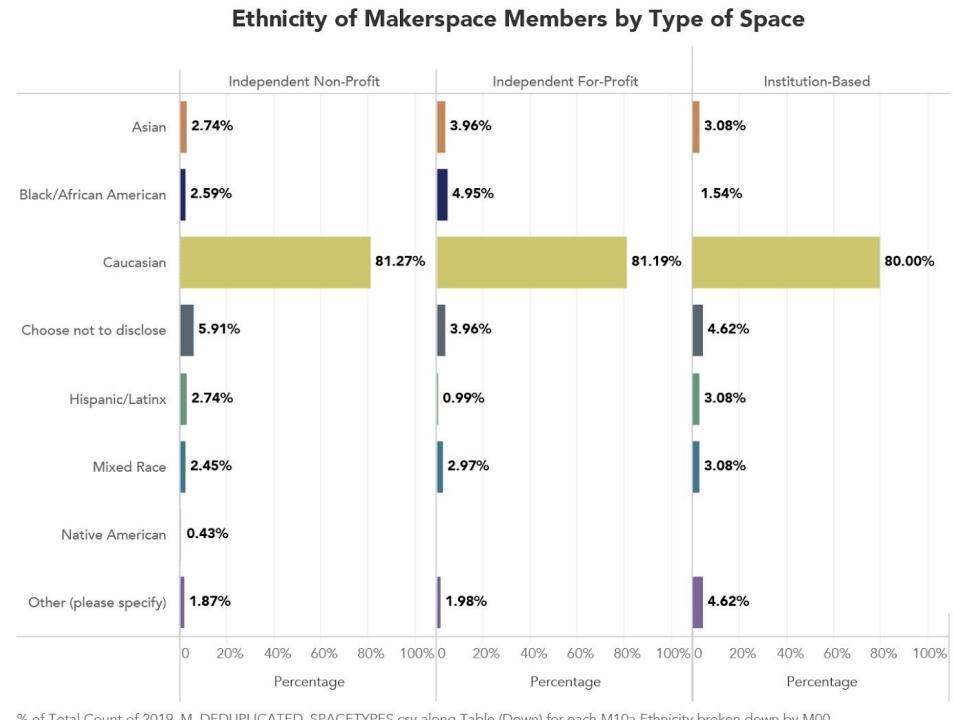
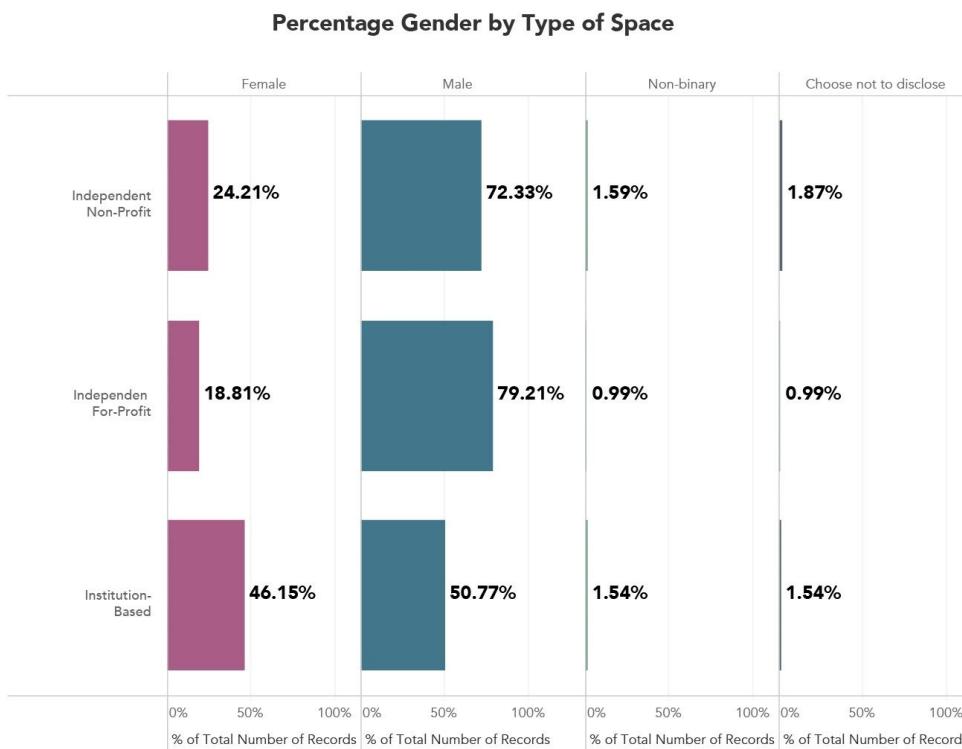
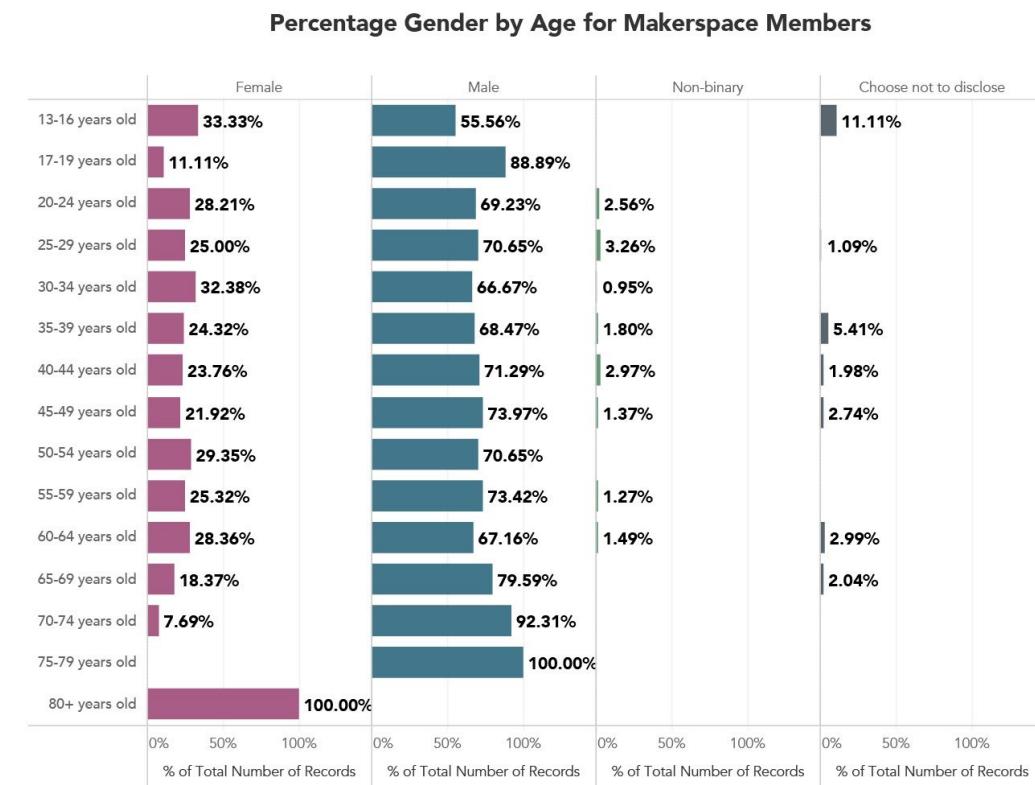


Figure 3.1d - Question 10: Your Ethnicity



% of Total Number of Records for each M00 Spacetype Grouped broken down by M08 Gender. Color shows details about M08 Gender. Percents are based on each row of the table.

Figure 3.1e - Question 8: Your Gender



% of Total Number of Records for each M07 Age Range broken down by M08 Gender. Color shows details about M08 Gender. Percents are based on each row of the table.

Figure 3.1f -Question 7: Your Age Range, Question 8: Your Gender

	Certifications	Associates	Bachelors - Minor	Bachelors - Major	Masters	PhD
Grand Total	233	113	184	538	237	59

What is the Educational Background of Makerspace Members?

Degree Category (group)	Certifications	Associates	Bachelors - Minor	Bachelors - Major	Masters	PhD
Agriculture and natural resources	2		2	16	2	1
Architecture and related services	2	3	1	10	8	
Area, ethnic, cultural, gender, and group studies	1		4	2	1	
Art				1		
Biological and biomedical sciences		1	7	35	10	11
Business	16	7	16	36	35	
Communication, journalism, and related programs	2	6	2	28	6	
Communications technologies	12	1		1		
Computer and information sciences	12	23	20	81	36	4
*Information technology	51	6		1	3	
Construction trades	16	2	2			
Education	18	1	4	14	20	3
Engineering	7	13	7	108	32	9
Engineering technologies and engineering-related fields	10	6	4	2	6	
English language and literature/letters			6	20	5	
Family and consumer sciences/human sciences				1		
Foreign languages, literatures, and linguistics		1	13	7	1	
Health professions and related programs	19	6		1	11	4
Homeland security, law enforcement, and firefighting	5	2	1	1		

What is the Educational Background of Makerspace Members?

Degree Category (group)	Certifications	Associates	Bachelors - Minor	Bachelors - Major	Masters	PhD
Legal professions and studies	2				2	12
Liberal arts and sciences, general studies, and humanities	2	9	4	7	1	
Library science	1				1	5
Mathematics and statistics			1	22	8	5
Mechanic and repair technologies/technicians	15	3				
Military technologies and applied sciences	2					1
Multi/interdisciplinary studies	1				1	3
Parks, recreation, leisure, and fitness studies	5			1	6	
Philosophy and religious studies			6	4	1	
Physical sciences and science technologies		8	18	28	9	7
Precision production	7	1	3		1	
Psychology	2	2	6	14	5	3
Public administration and social services	3		2	14	2	
Social sciences and history			13	30	10	3
Theology and religious vocations		2				1
Transportation and materials moving	9				1	2
Visual and performing arts	6	7	18	58	9	
Other and not classified	4					
Unclear	1	2	2		5	2

Figure 3.1g - Question 12: If you have received a degree or certification(s), what did you receive it/them in?,

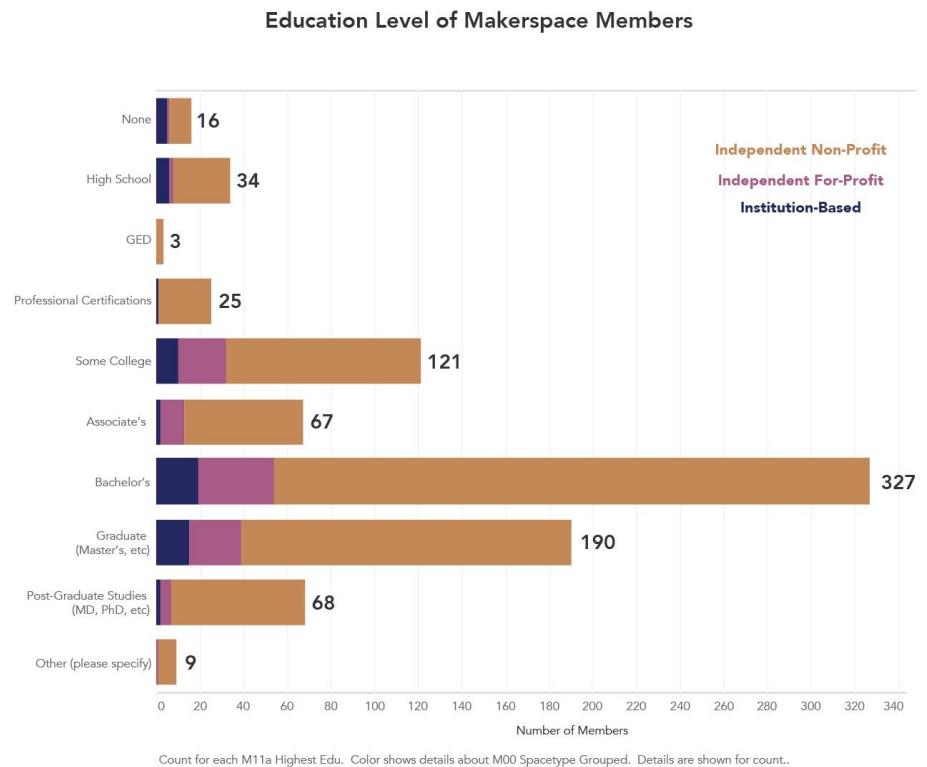


Figure 3.1f - Question 11: Highest level of education you have completed

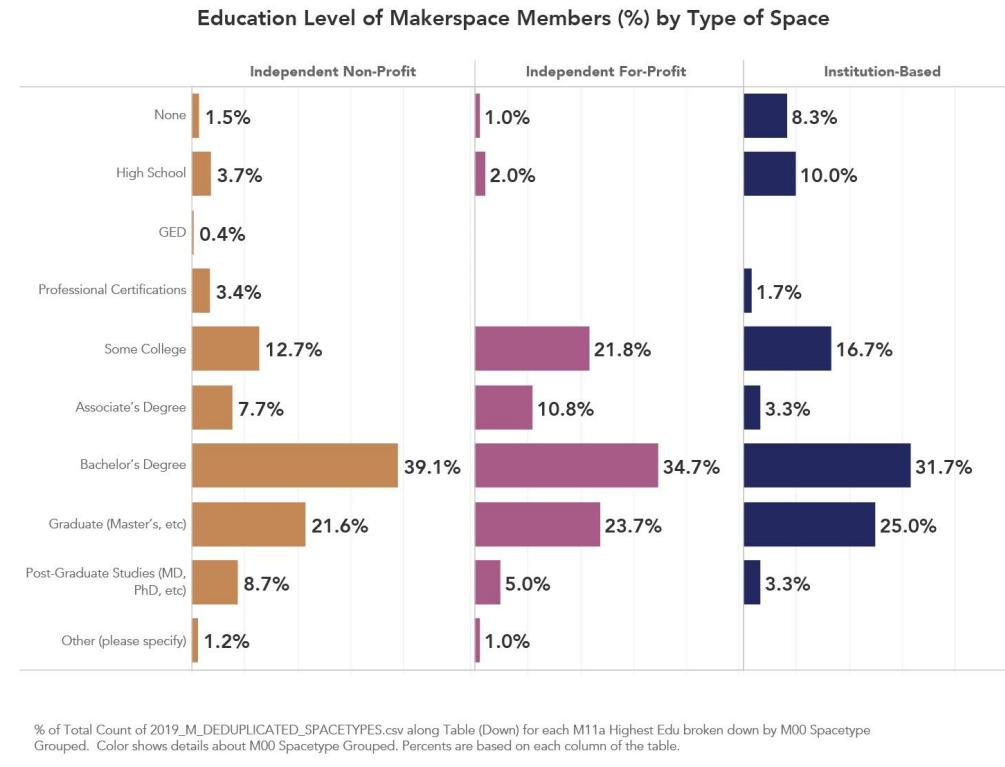
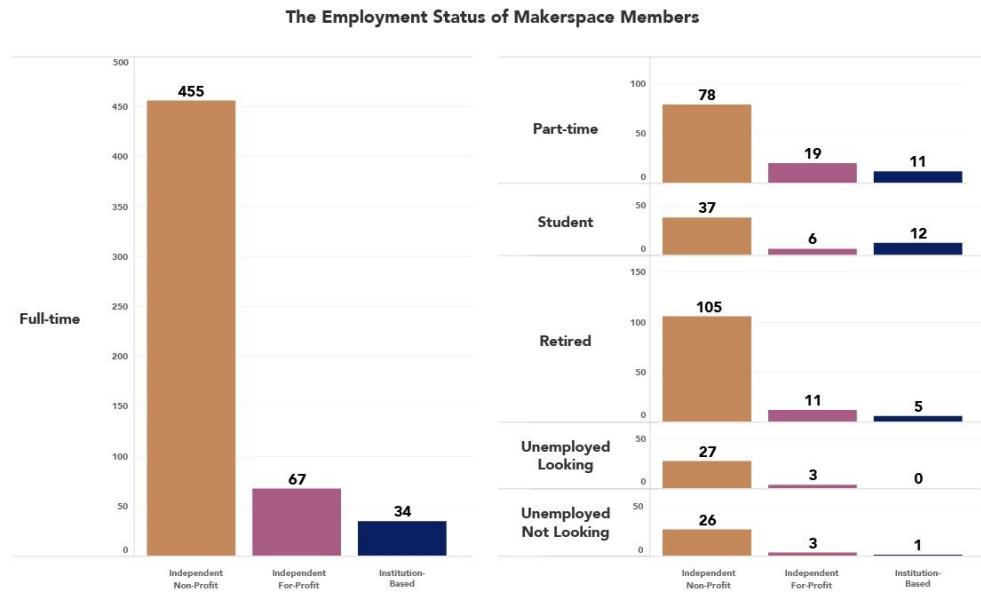


Figure 3.1g - Question 11: Highest level of education you have completed



The Professional Background of Makerspace Members

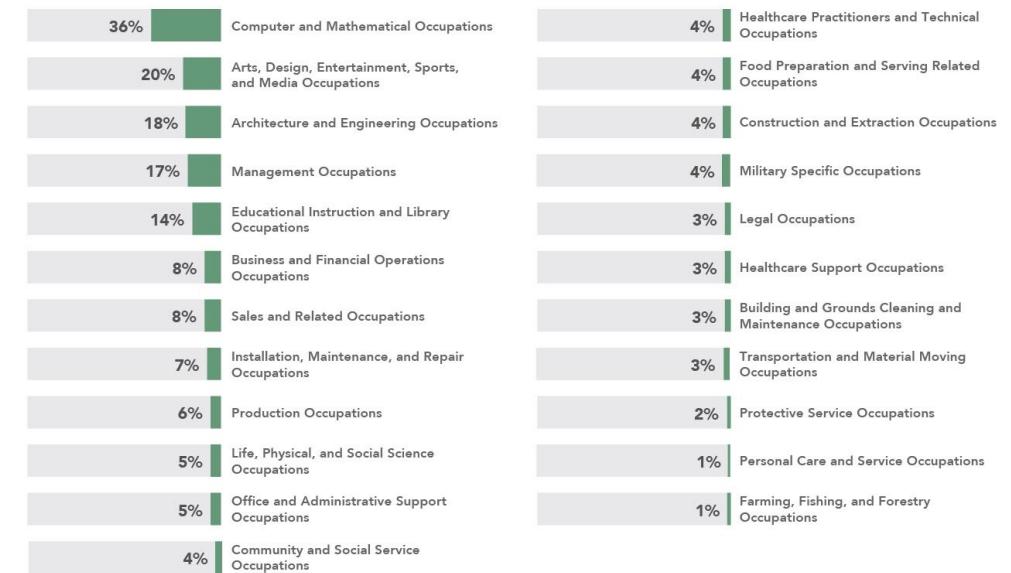


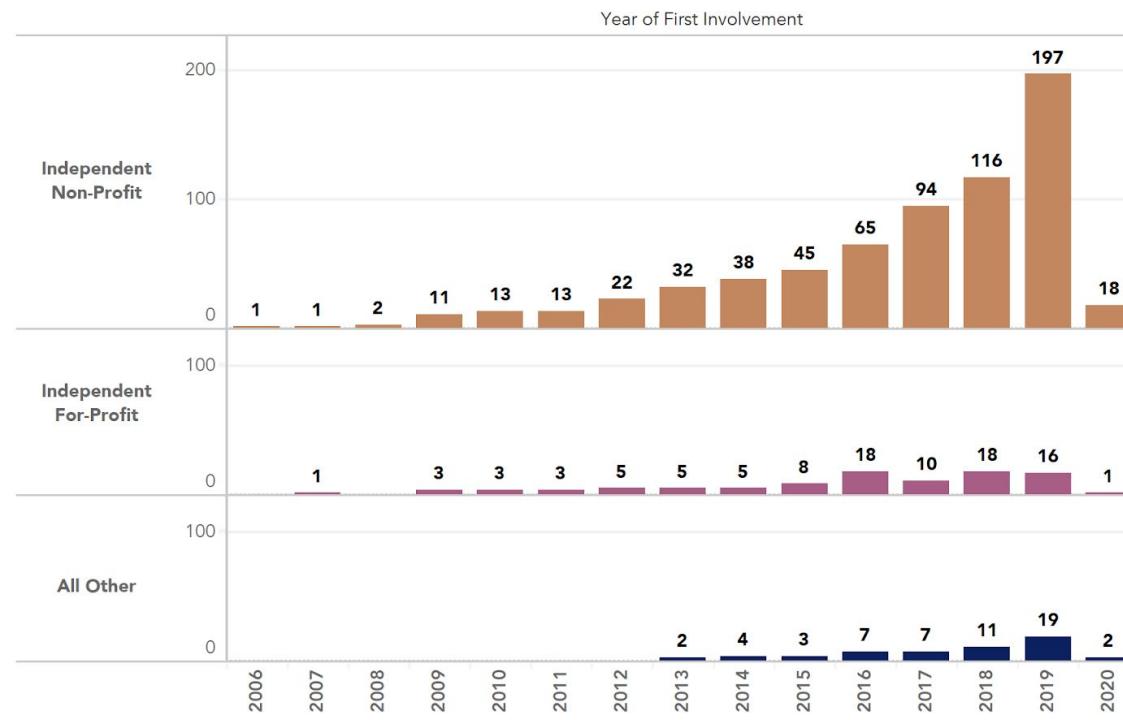
Figure 3.1h - Question 9: What is your employment status?

Figure 3.1i - Question 13: What is your professional background?

3.2 - Relationship with the Makerspace

An individual's rationale for pursuing a relationship with a makerspace can be for business, personal hobbies or community. In the survey we asked members to help us understand how long they have been involved with their primary makerspace and what their relationship with the space is.

What Year did Makerspace Members Become Involved In Their Space?



Count of 2019_M_DEDUPLICATED_SPACETYPES.csv for each M14 When Involved Year broken down by M00 Spacetype Grouped.
Color shows details about M00 Spacetype Grouped.

Figure 3.1e - Question 14: When did you become involved with your primary makerspace? (If you don't remember the exact date, estimate it as best you can.)

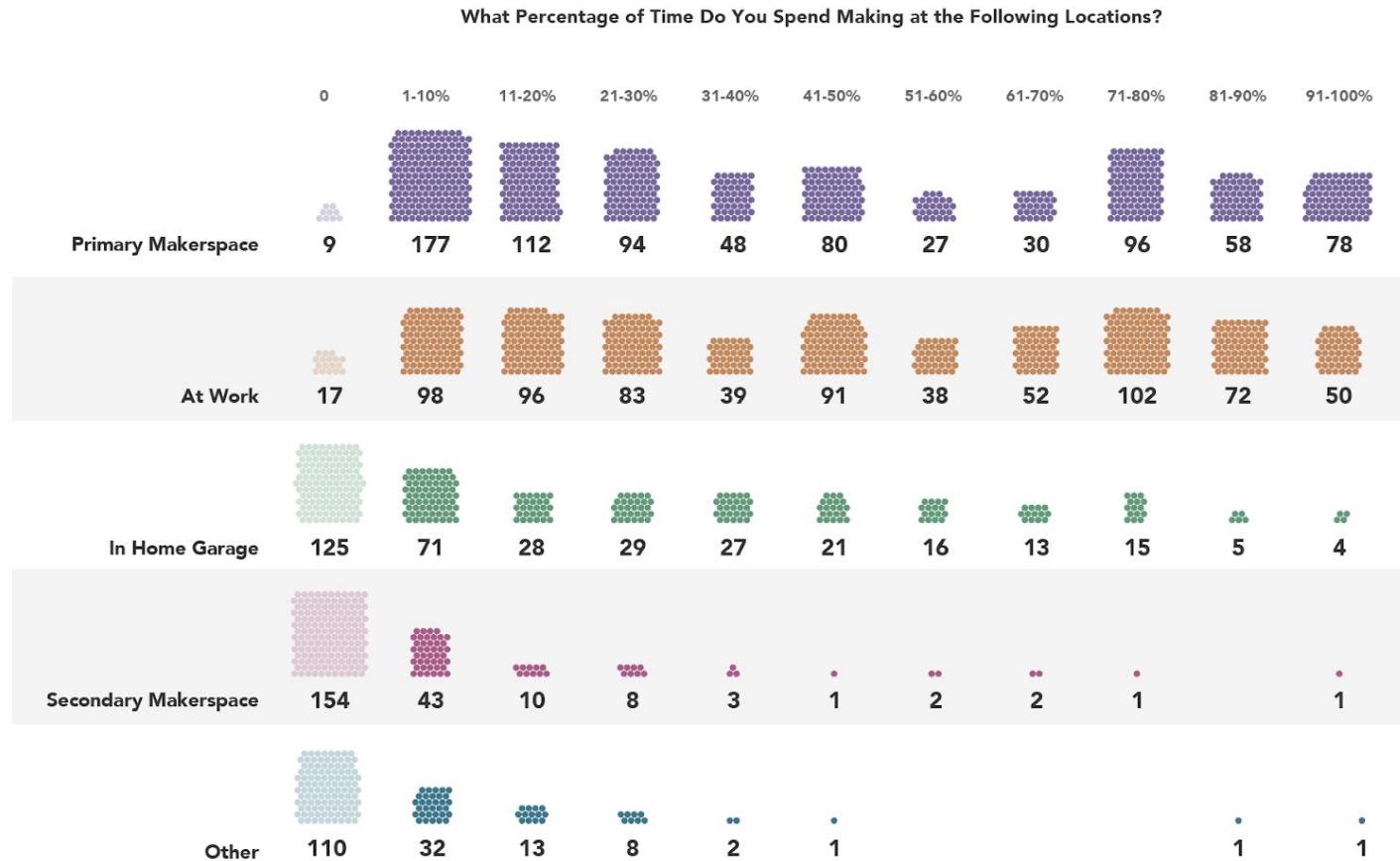


Figure 3.1e - Question 15: What percentage of the time do you spend making at the following locations? (Must add up to 100%. Please enter numbers only, no symbols.)

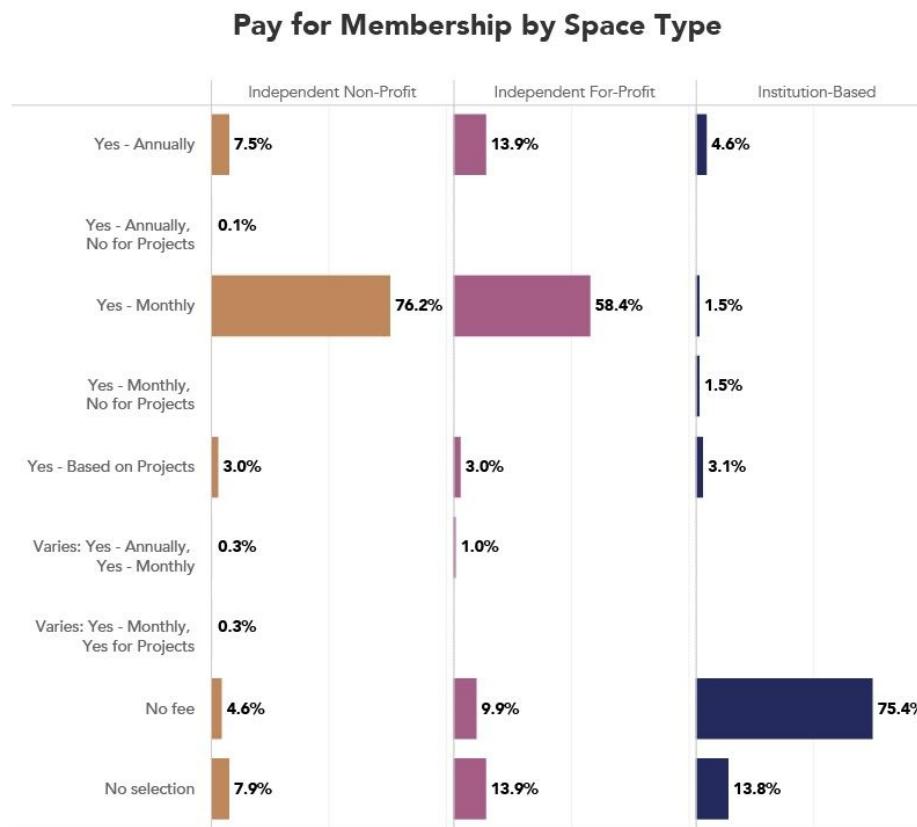


Figure 3.1e - Question 16: Do you pay a membership fe

3.3 - Making by Members

Everyone is attracted to makerspaces for different reasons. In the survey we asked members to help us understand why they make and why they are members and participants of a makerspace.

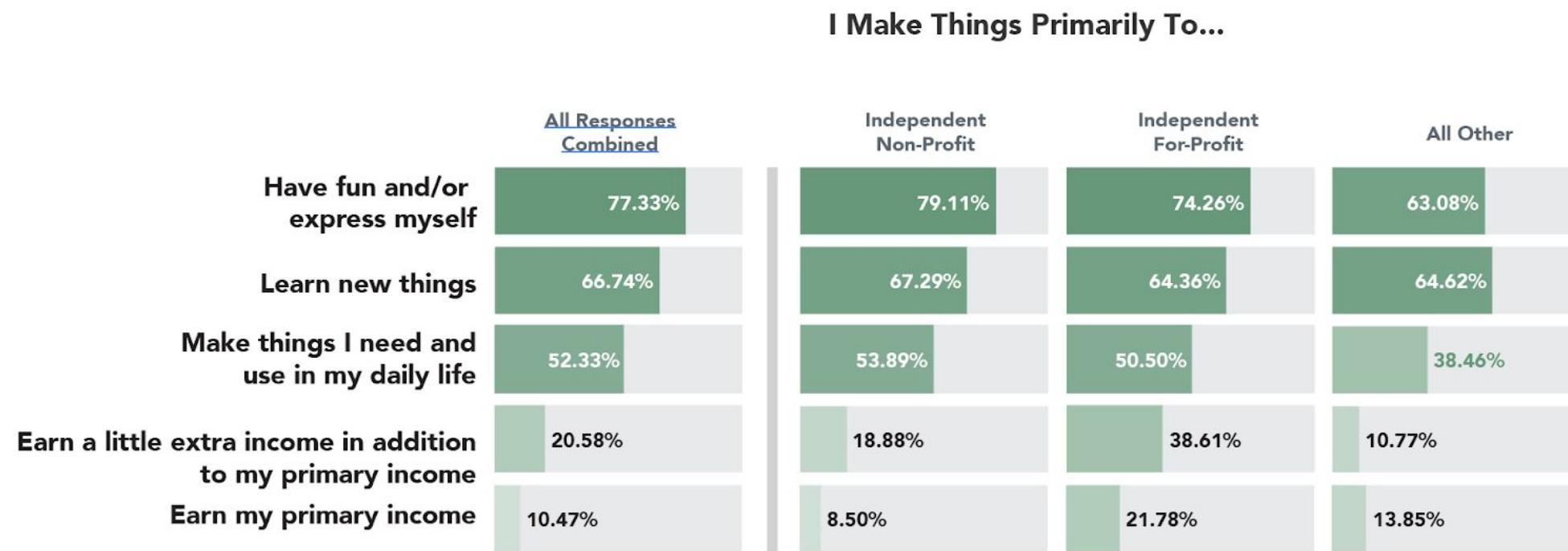
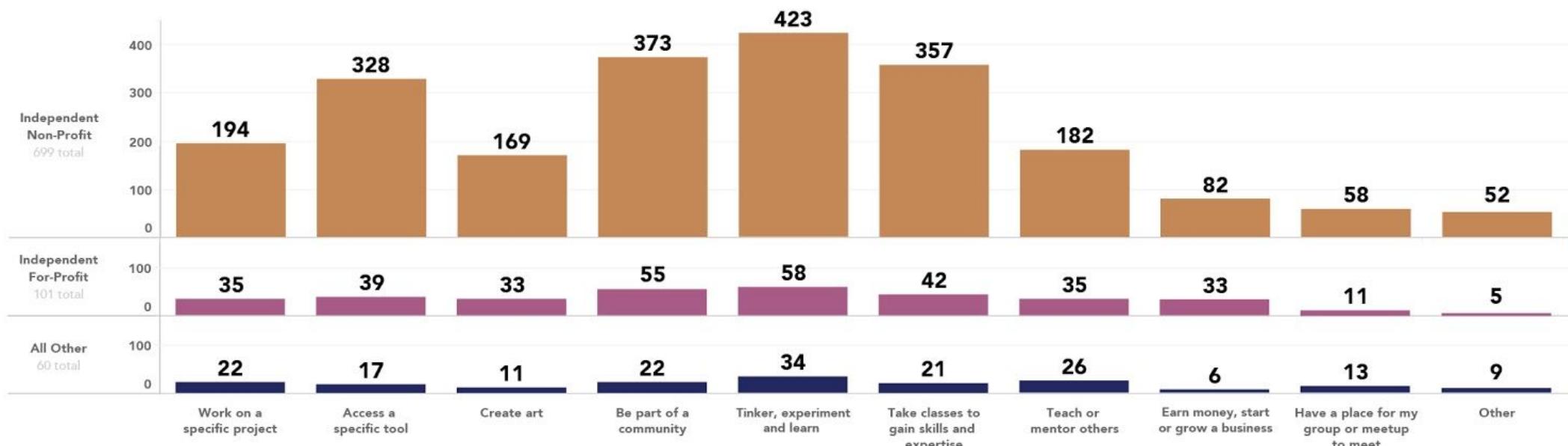


Figure 3.3a - Question 19: "I make things primarily to...(check all that apply)"

Why Did You Join Your Makerspace?



Count for each M20a through M20j broken down by M00 Spacetype Grouped. The view is filtered on M20a through j, which eliminates null responses

Figure 3.3b - Question 20: "Why did you join your makerspace? To..."

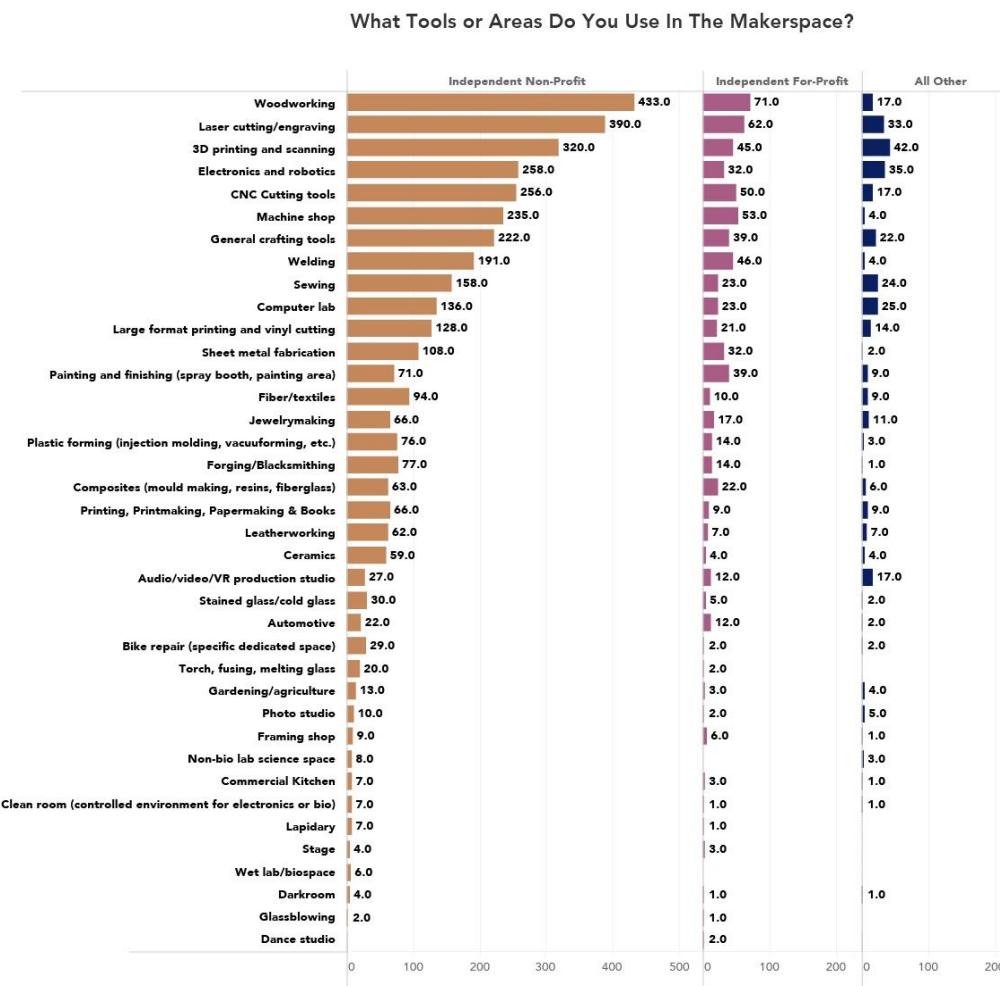


Figure 3.3c - Question 21: "What tools or areas do you use in the makerspace? (Select all that apply)"

Activity Use in Last 12 Months Across All Space Types

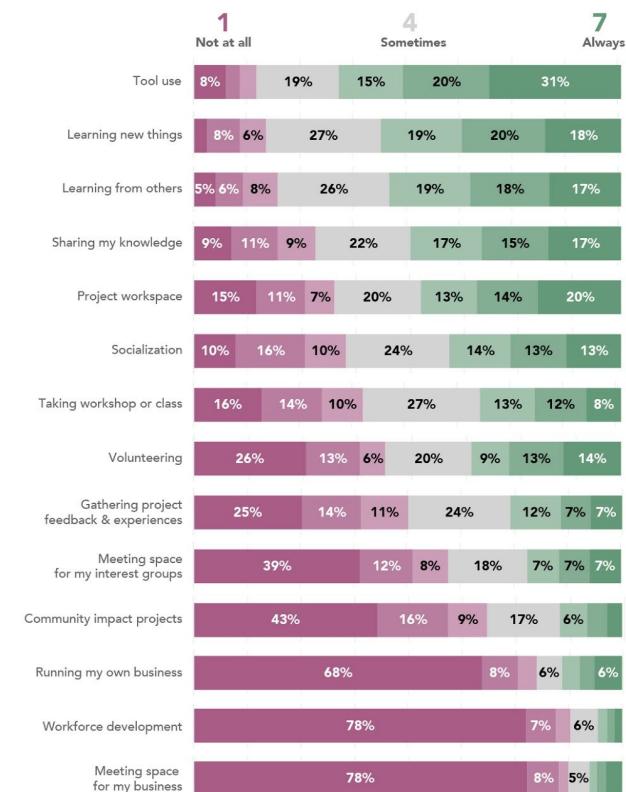
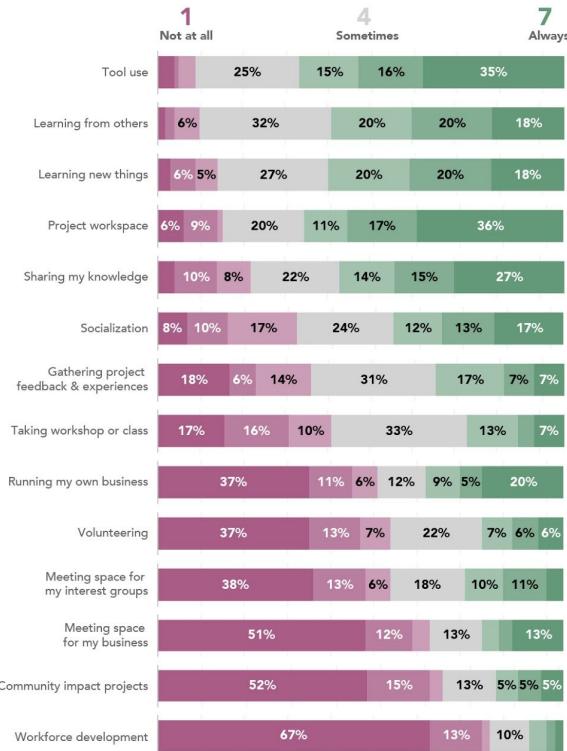
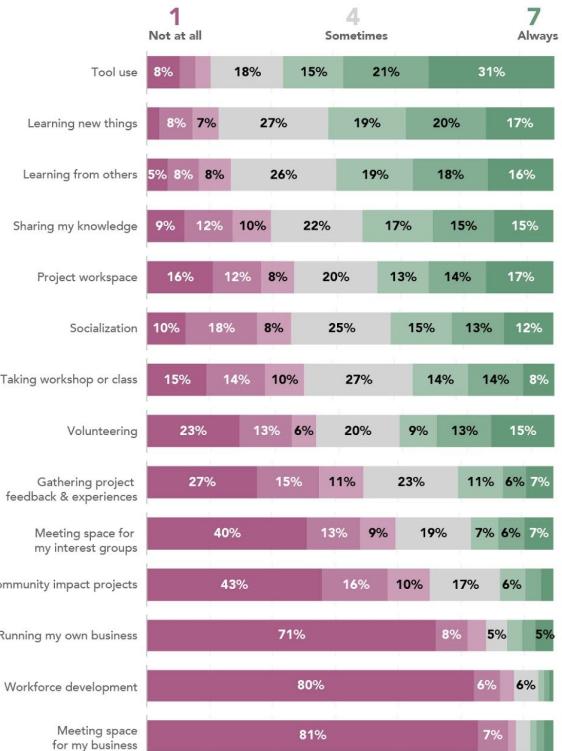


Figure 3.3d - Question 17: "On a scale of 1-7, to what extent have you used your primary makerspace for the following activities in the last 12 months?"

Activity Use in Last 12 Months (Independent For-Profit Only)



Activity Use in Last 12 Months (Independent Non-Profits Only)



Activity Use in Last 12 Months (Institution-Based Only)

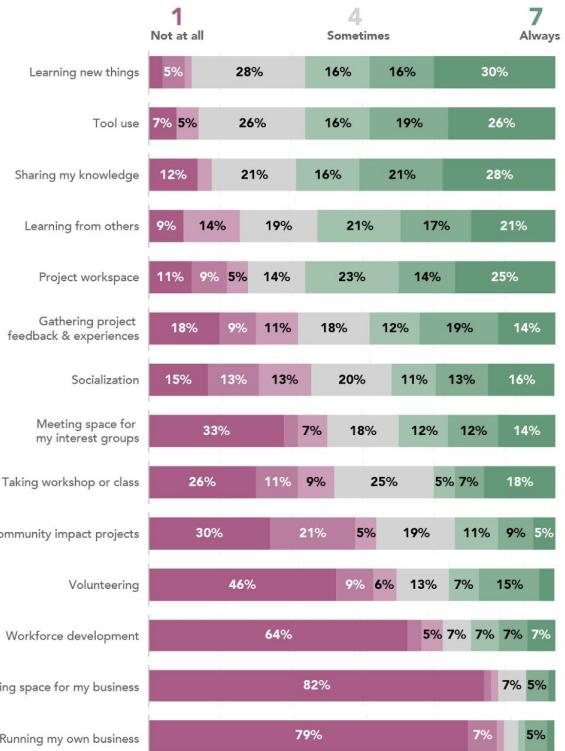


Figure 3.3e, f, g - Question 17: "On a scale of 1-7, to what extent have you used your primary makerspace for the following activities in the last 12 months?"

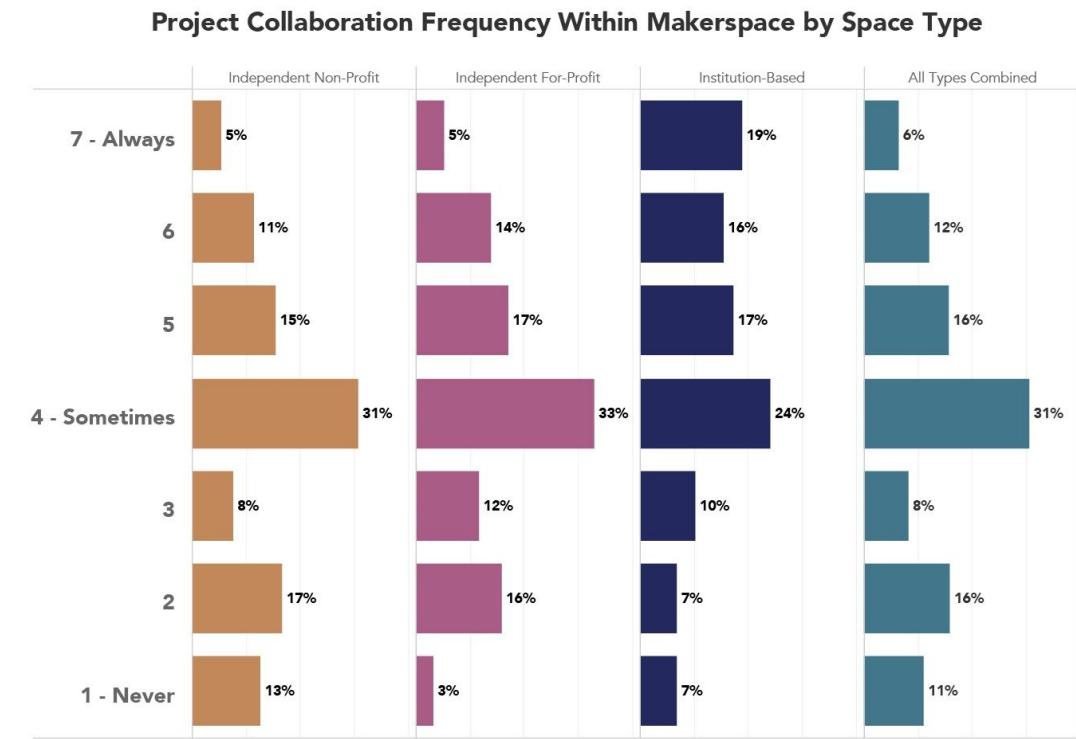
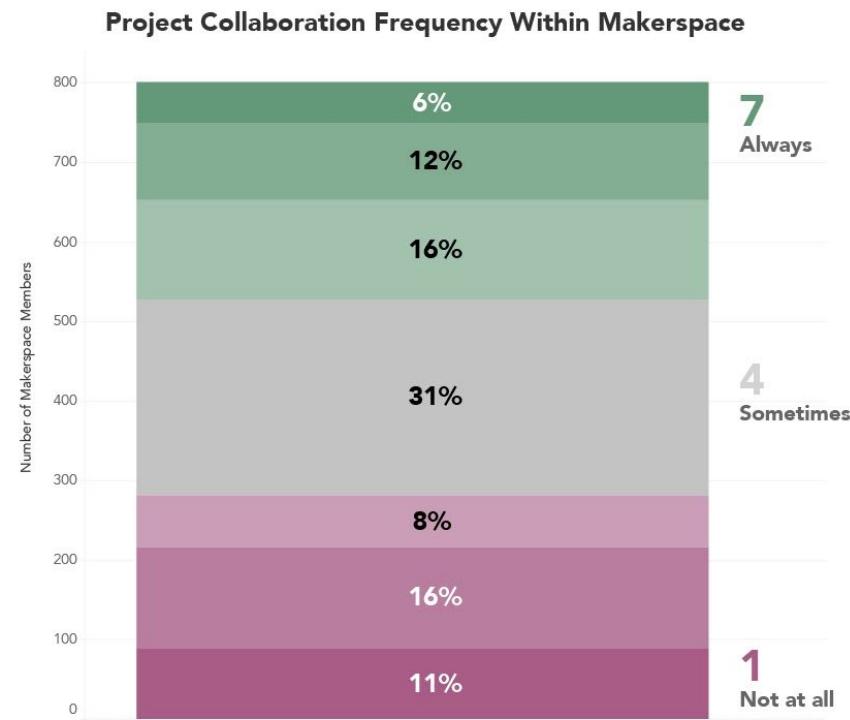


Figure 3.3h - Question 23: "How often do you collaborate with other people in your makerspace on your projects?"

Figure 3.3i - Question 23: "How often do you collaborate with other people in your makerspace on your projects?"

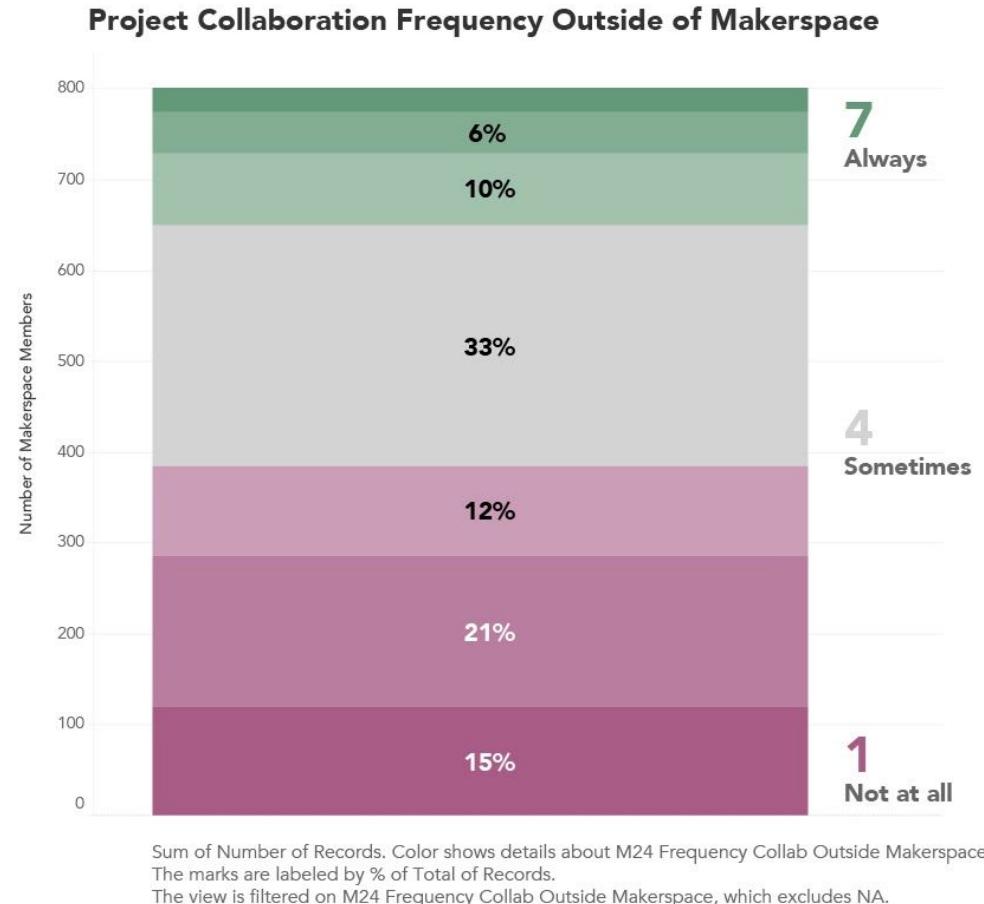


Figure 3.3j - Question 24: "How often do you collaborate with other people outside of the makerspace on your projects?"

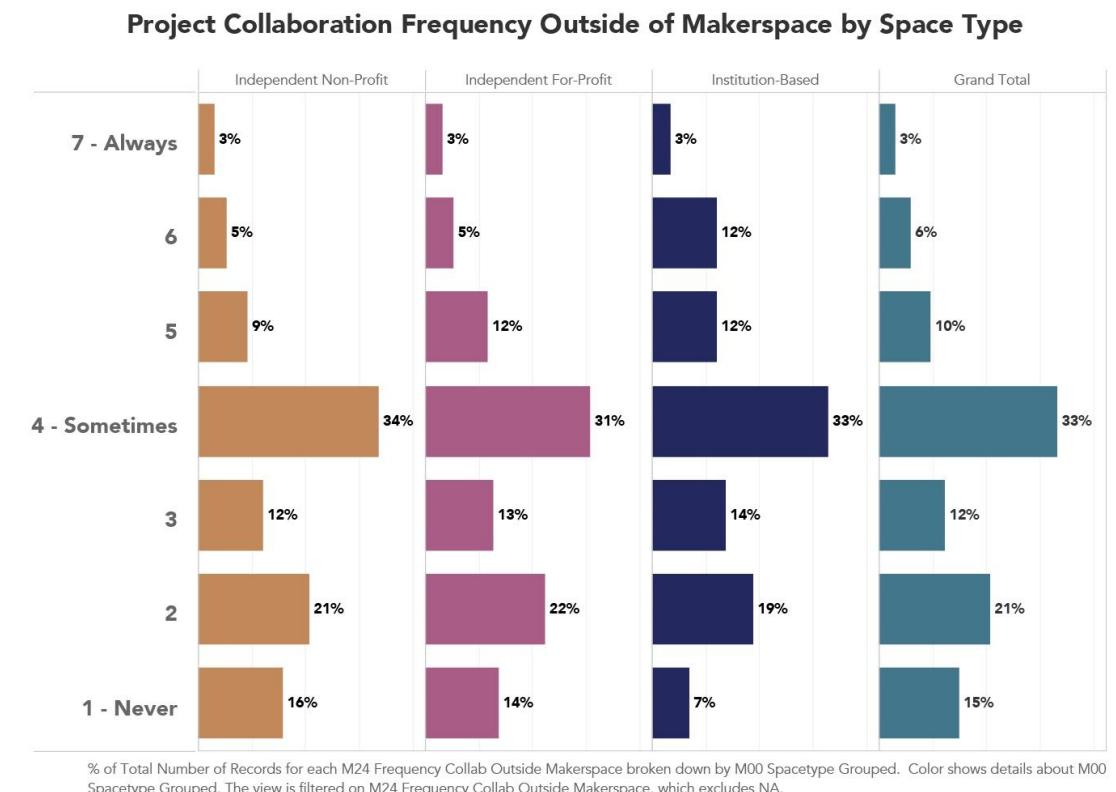
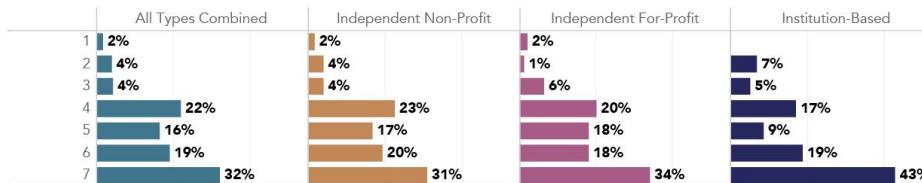


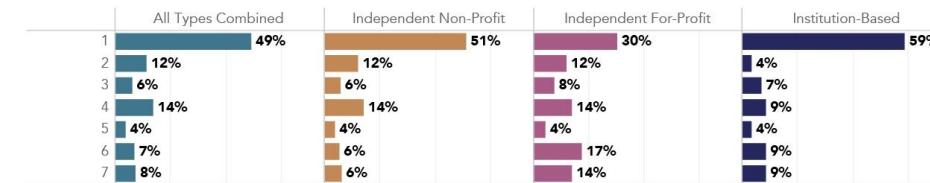
Figure 3.3k - Question 24: "How often do you collaborate with other people outside of the makerspace on your projects?"

I Talk About What I'm Making with Family Members or Friends Outside of the Makerspace by Space Type



% of Total Number of Records for each M25a Talk Friends Family broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The view is filtered on M25a Talk Friends Family, which excludes NA.

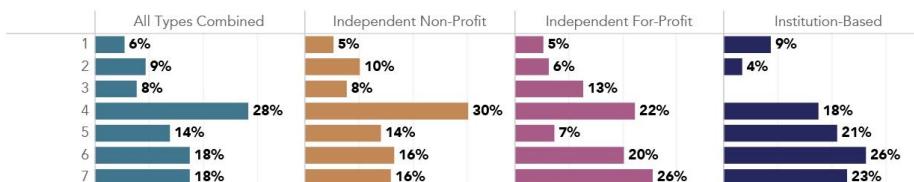
I Talk About What I'm Making with Current or Potential Business Customers by Space Type



% of Total Number of Records for each M25d Talk Customers broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The view is filtered on M25d Talk Customers, which excludes NA.

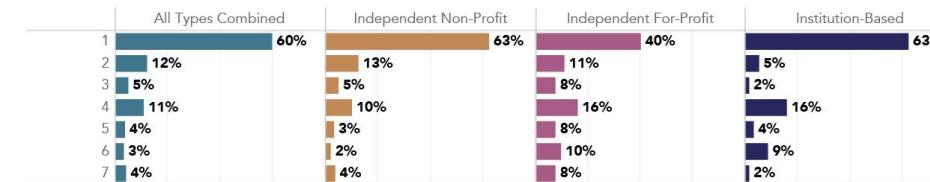
Figures 3.3l, m Question 25: "To what extent do you talk about what you are making with the following groups?"

I Talk About What I'm Making with Makerspace Staff and Instructors by Space Type



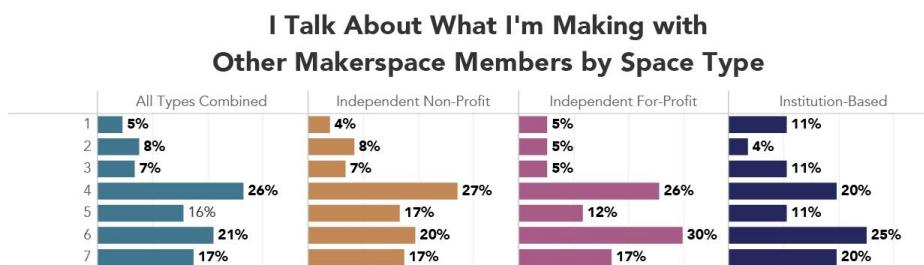
% of Total Number of Records for each M25b Talk Makerspace Staff broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The view is filtered on M25b Talk Makerspace Staff, which excludes NA.

I Talk About What I'm Making with Current or Potential Business Suppliers by Space Type



% of Total Number of Records for each M25e Talk Suppliers broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The view is filtered on M25e Talk Suppliers, which excludes NA.

Figures 3.3n, o, Question 25: "To what extent do you talk about what you are making with the following groups?"



% of Total Number of Records for each M25c Talk Other Members broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The view is filtered on M25c Talk Other Members, which excludes NA.



% of Total Number of Records for each M25f Talk Advisors Investors broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The view is filtered on M25f Talk Advisors Investors, which excludes NA.

Figures 3.3p, Question 25: "To what extent do you talk about what you are making with the following groups?"

Startup Activities Members Are Engaged In

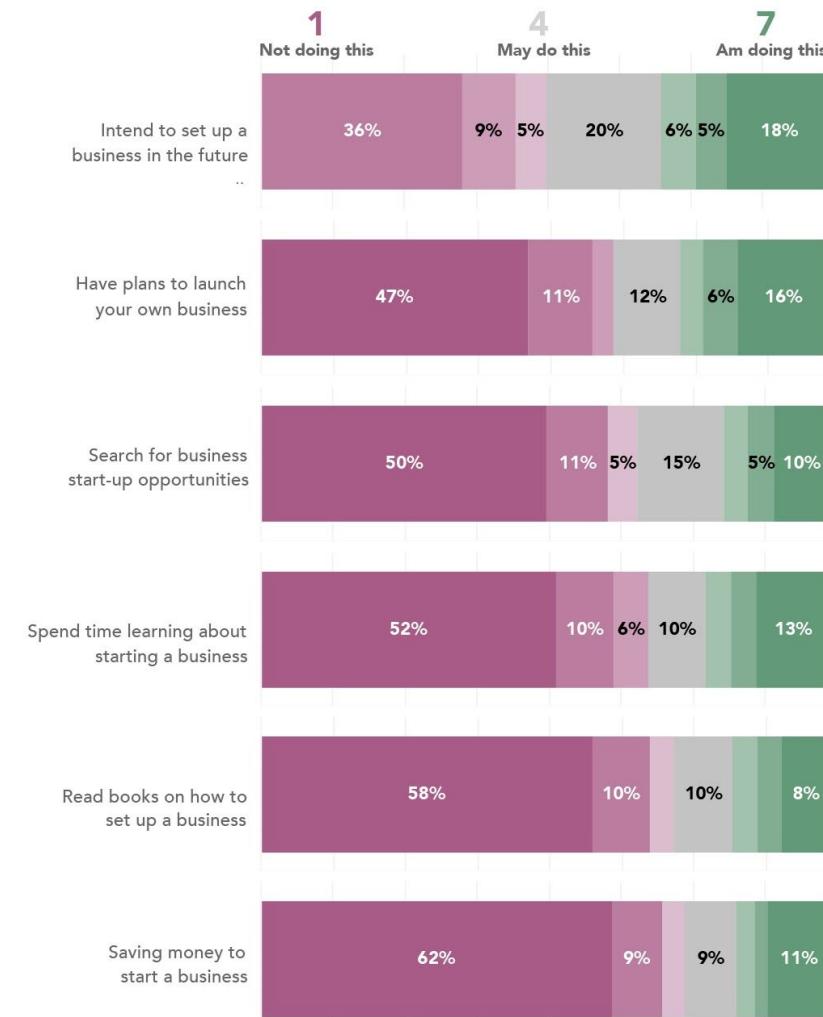
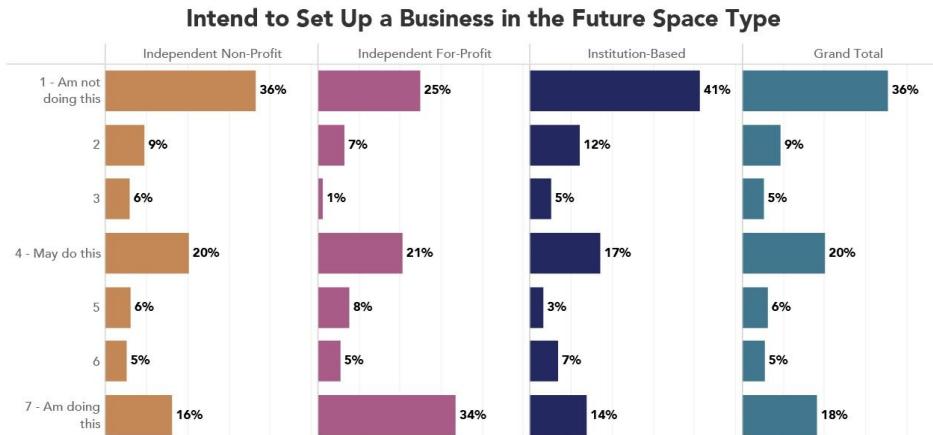


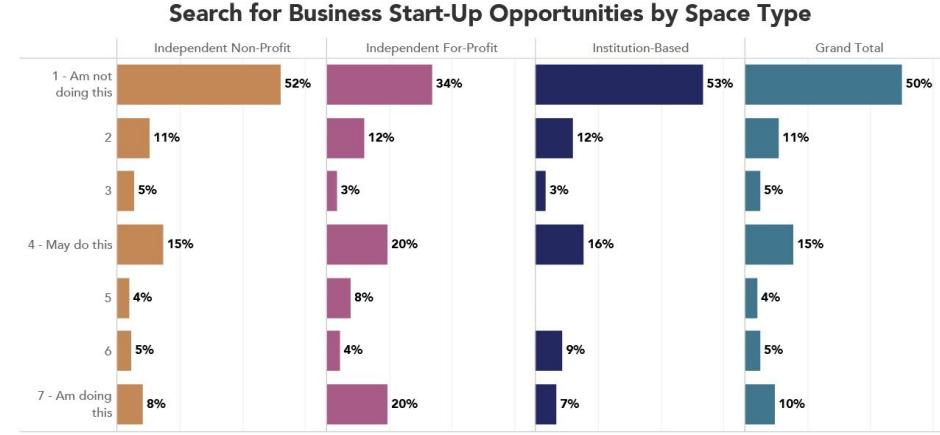
Figure 3.3q - Question 26: "Thinking of yourself, how true or untrue is it that you currently:"

There was a trend noted that members that are interested in a business are more likely to be a member of an Independent For-Profit organization.



% of Total Number of Records for each M26a Bus Intend To Start broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The view is filtered on M26a Bus Intend To Start, which excludes NA.

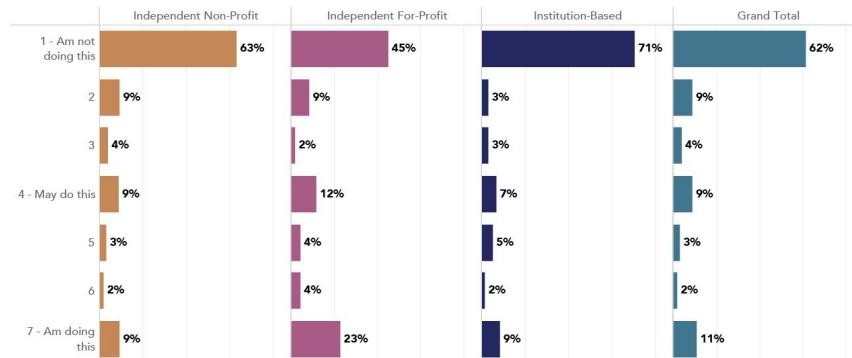
Figure 3.3r - Question 26: "Thinking of yourself, how true or untrue is it that you currently:"



% of Total Number of Records for each M26b Bus Search For Opps broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The data is filtered on M26a Bus Intend To Start, which excludes NA. The view is filtered on M26b Bus Search For Opps, which excludes NA.

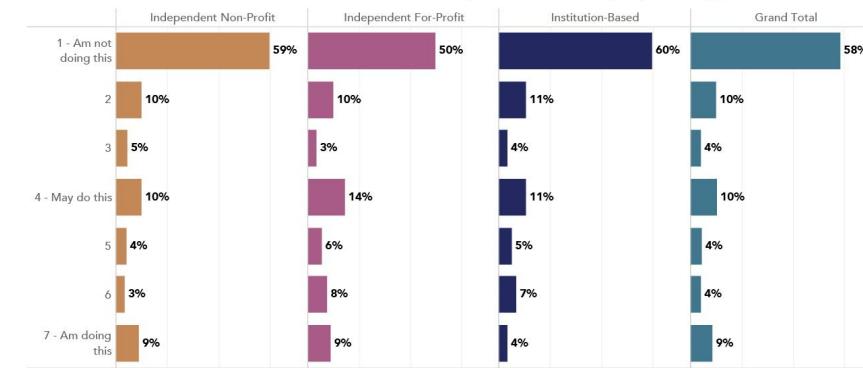
Figure 3.3s - Question 26: "Thinking of yourself, how true or untrue is it that you currently:"

Are Saving Money to Start a Business by Space Type



% of Total Number of Records for each M26c Bus Saving For broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The view is filtered on M26c Bus Saving For, which excludes NA.

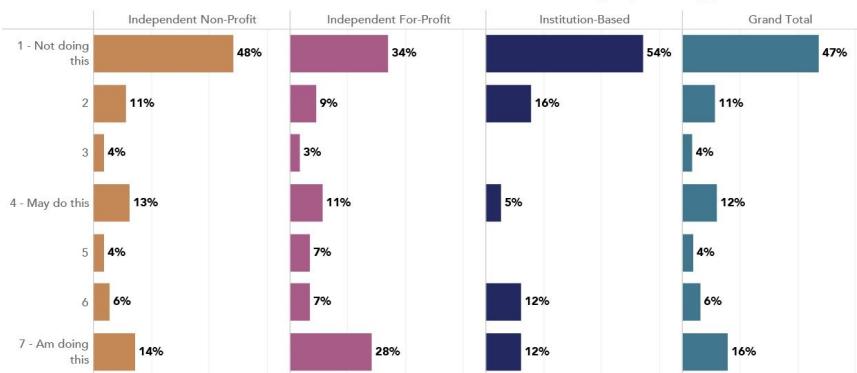
Read Books on How to Set Up a Business by Space Type



% of Total Number of Records for each M26d Bus Read Books broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The data is filtered on M26c Bus Saving For, which excludes NA. The view is filtered on M26d Bus Read Books, which excludes NA.

Figure 3.3t - Question 26: "Thinking of yourself, how true or untrue is it that you currently:"

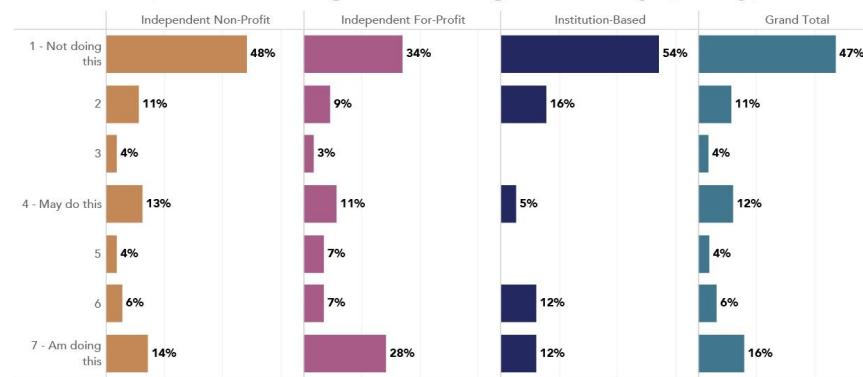
Have Plans to Launch Your Own Business by Space Type



% of Total Number of Records for each M26e Bus Plans To Launch broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The data is filtered on M26c Bus Saving For, which excludes NA. The view is filtered on M26e Bus Plans To Launch, which excludes NA.

Figure 3.3v - Question 26: "Thinking of yourself, how true or untrue is it that you currently:"

Spend Time Learning About Starting a Business by Space Type



% of Total Number of Records for each M26e Bus Plans To Launch broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The data is filtered on M26c Bus Saving For, which excludes NA. The view is filtered on M26e Bus Plans To Launch, which excludes NA.

Figure 3.3w - Question 26: "Thinking of yourself, how true or untrue is it that you currently:"

3.4 - Involvement in Their Makerspace

Individuals differ across makerspaces, and members differ in their level of involvement within their makerspace. In the survey we asked members to let us know how active they are in their makerspace.

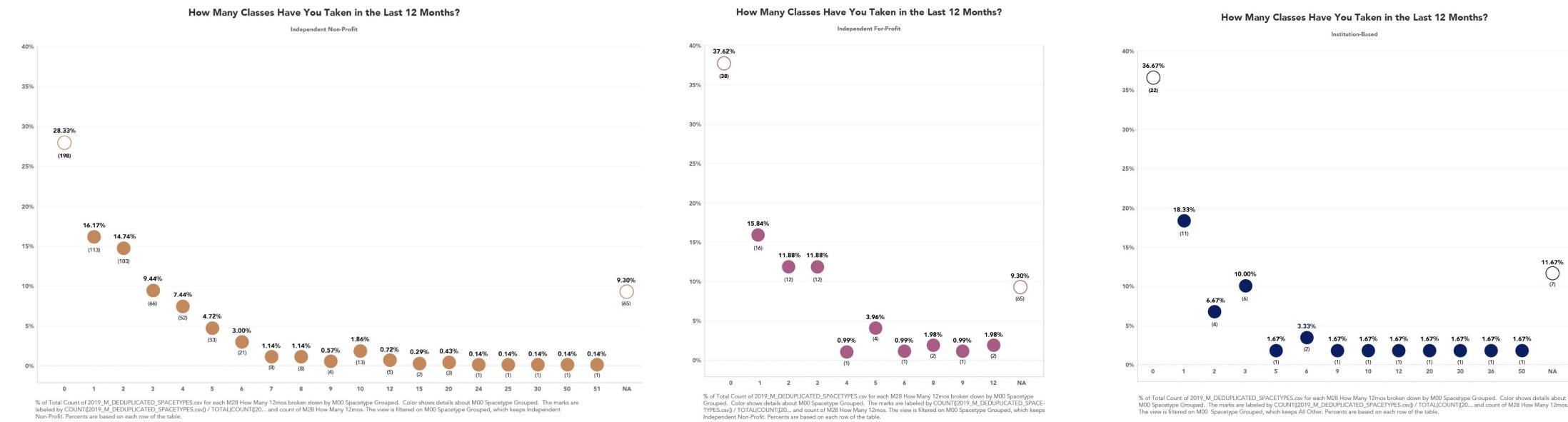
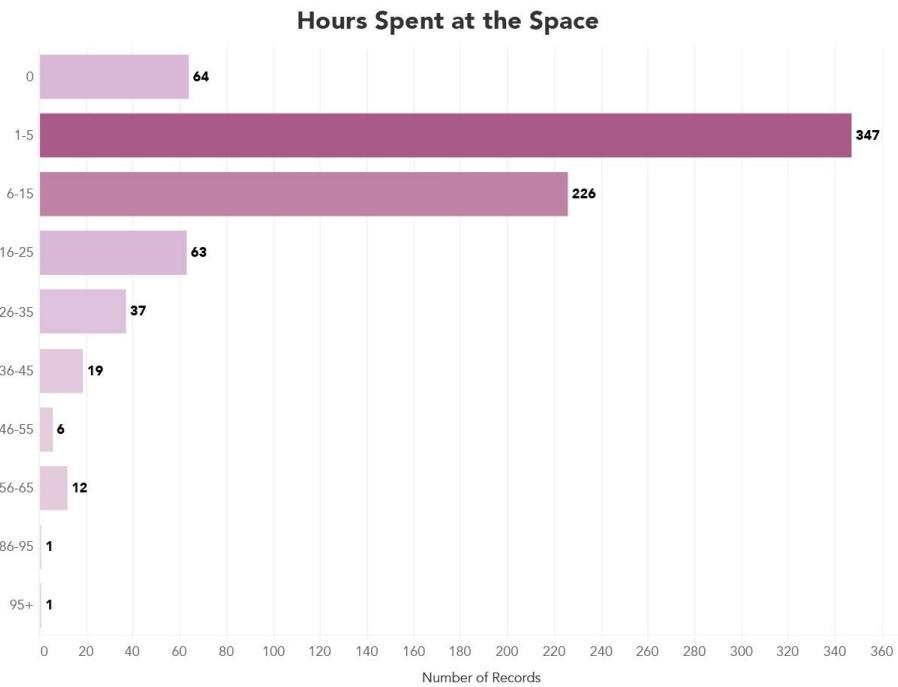
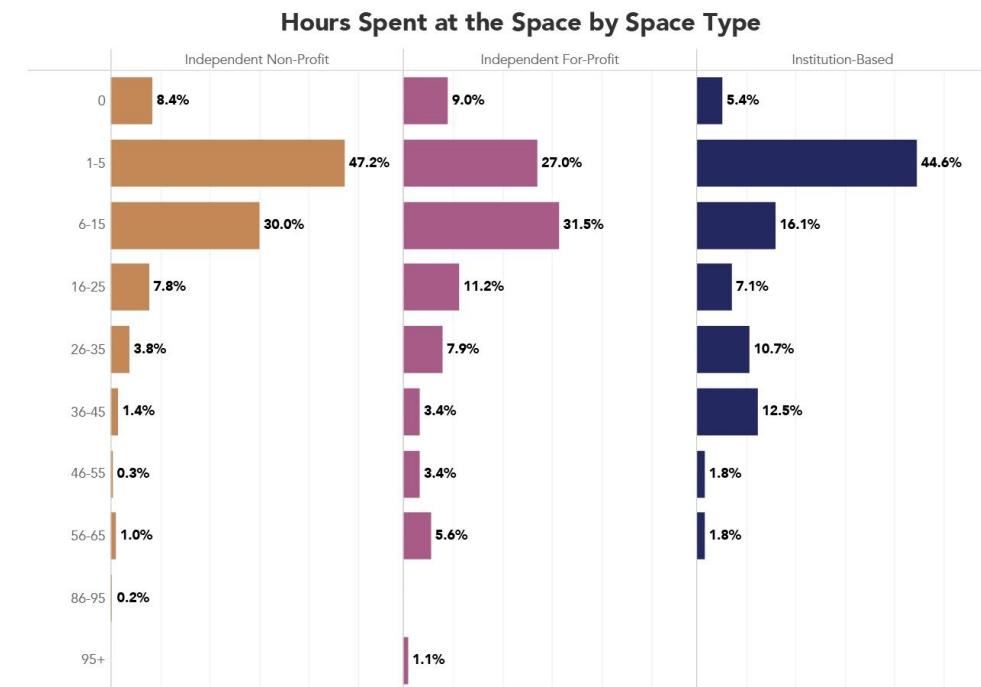


Figure 3.3x - Question 28 - "How many classes have you taken classes at your makerspace in the last 12 months?"



Count of 2019_M_DEDUPED_SPACETYPES.csv for each M29 Hours Spent Weekly (group). Color shows count of 2019_M_DEDUPED_SPACETYPES.csv. The view is filtered on M29 Hours Spent Weekly (group), which excludes NA.



% of Total Count of 2019_M_DEDUPED_SPACETYPES.csv along Table (Down) for each M29 Hours Spent Weekly (group) broken down by M00 Spacetype Grouped. Color shows details about M00 Spacetype Grouped. The marks are labeled by % of Total Count of 2019_M_DEDUPED_SPACETYPES.csv along Table (Down). The view is filtered on M29 Hours Spent Weekly (group), which excludes NA. Percents are based on each column of the table.

Figure 3.3y - Question 29: "Approximately how many hours a week do you spend at your makerspace, total?"

Figure 3.3z - Question 29: "Approximately how many hours a week do you spend at your makerspace, total?"

3.5 - Volunteer Roles of Members in their Makerspace

Many members contribute to their makerspaces by serving as active volunteers. The survey asked members what volunteer roles they occupied within their spaces. Although many members did not volunteer, nearly half of the members at independent non-profit spaces volunteered, assisting with tasks such as cleaning, maintaining equipment, and teaching

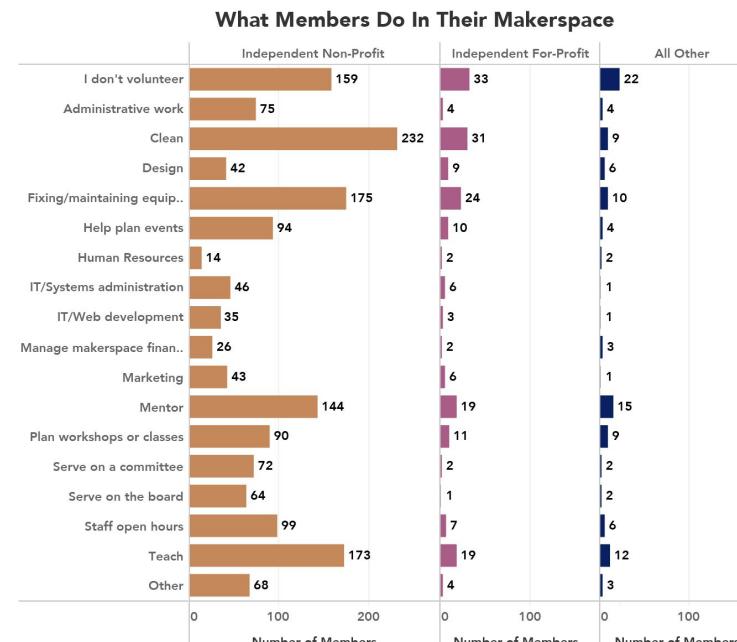


Figure 3.5a - Question 31: "If you do volunteer, what do you do? (Please mark all that apply)"

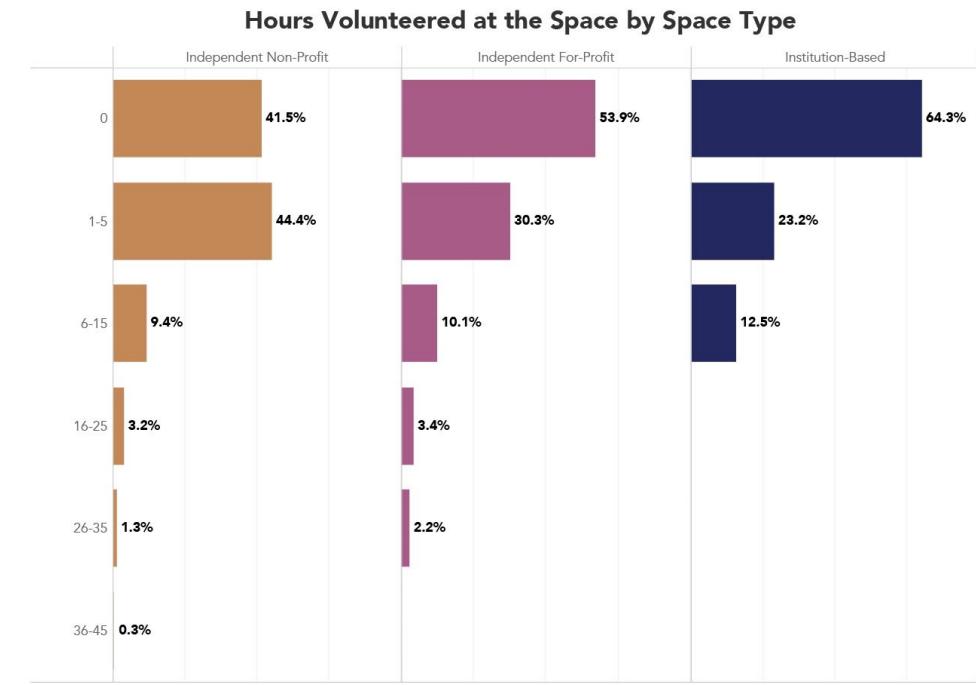
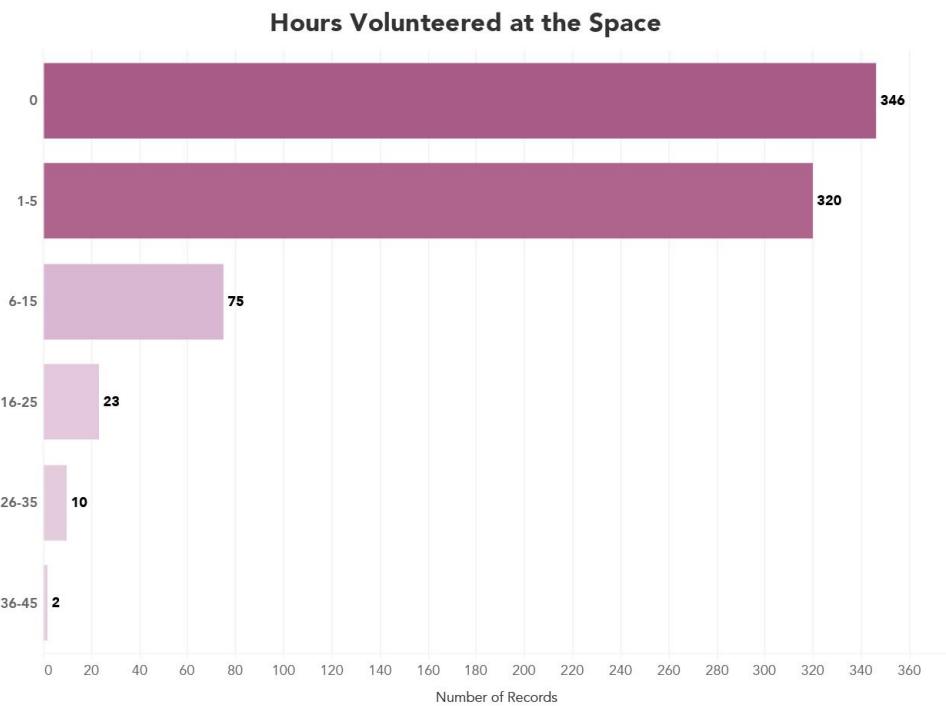


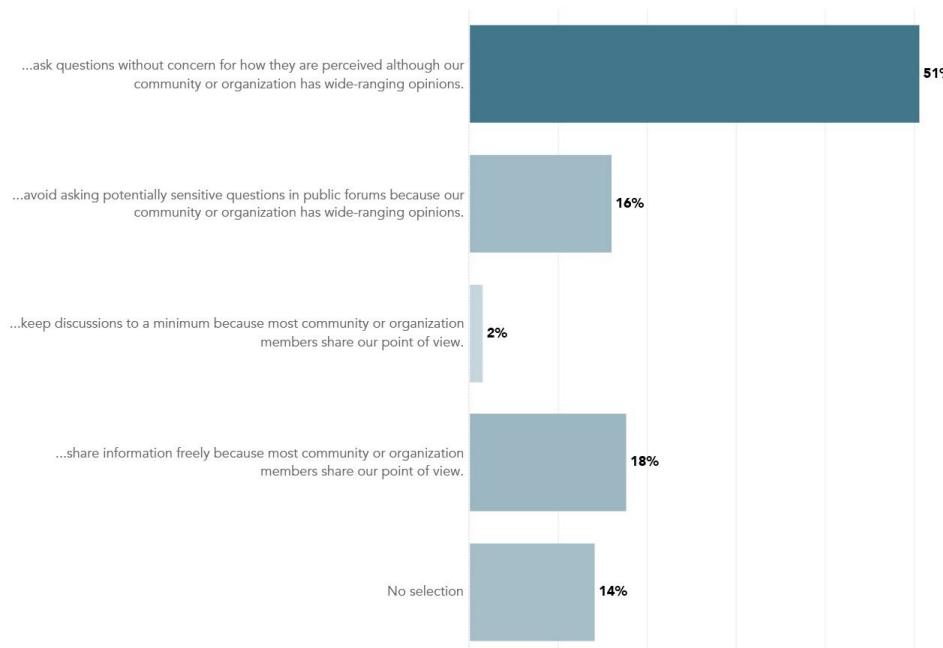
Figure 3.5b - Question 30: "Approximately how many hours a week do you volunteer at your makerspace?"

Figure 3.5c - Question 30: "Approximately how many hours a week do you volunteer at your makerspace?"

3.6 - Inclusivity & Diversity

Thank you to Coppin State University and Open Works in Baltimore for their *Greater Spaces And Places* research, and for allowing us to leverage their work by including their questions about our makerspace communities. The questions were designed to assess trust as a relational competency that influences receptivity to outgroups, those with whom we do not identify. Questions address cultural composition and transparency.

In Critical Situations, I Am Encouraged To



In Critical Situations, I Am Encouraged To (By Space Type)

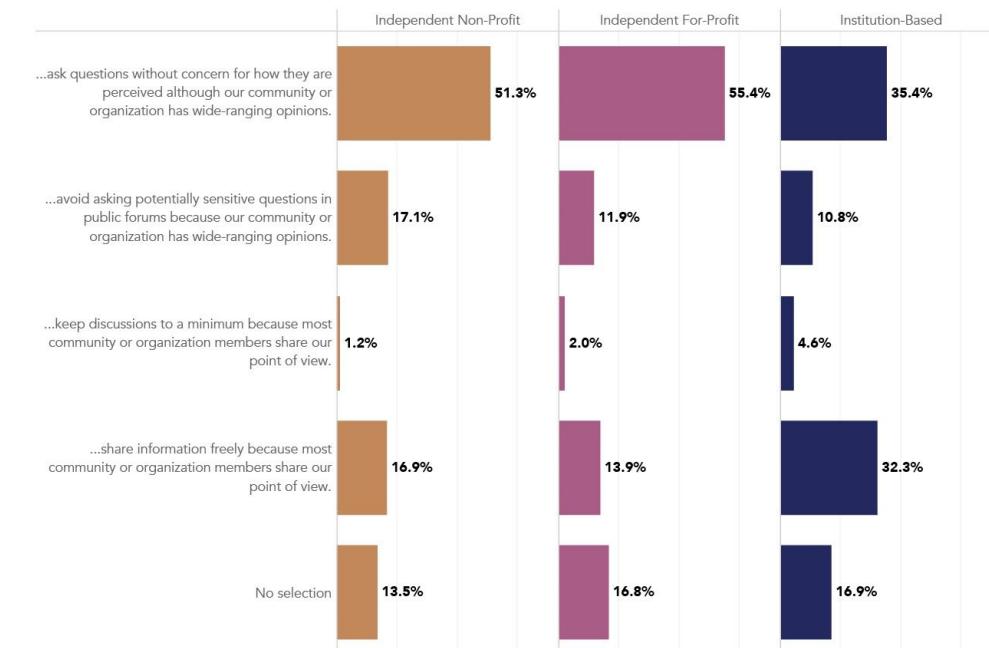


Figure 3.6a - Question 32: "In critical situations, I am encouraged to..."

Figure 3.6b - Question 32: "In critical situations, I am encouraged to..."

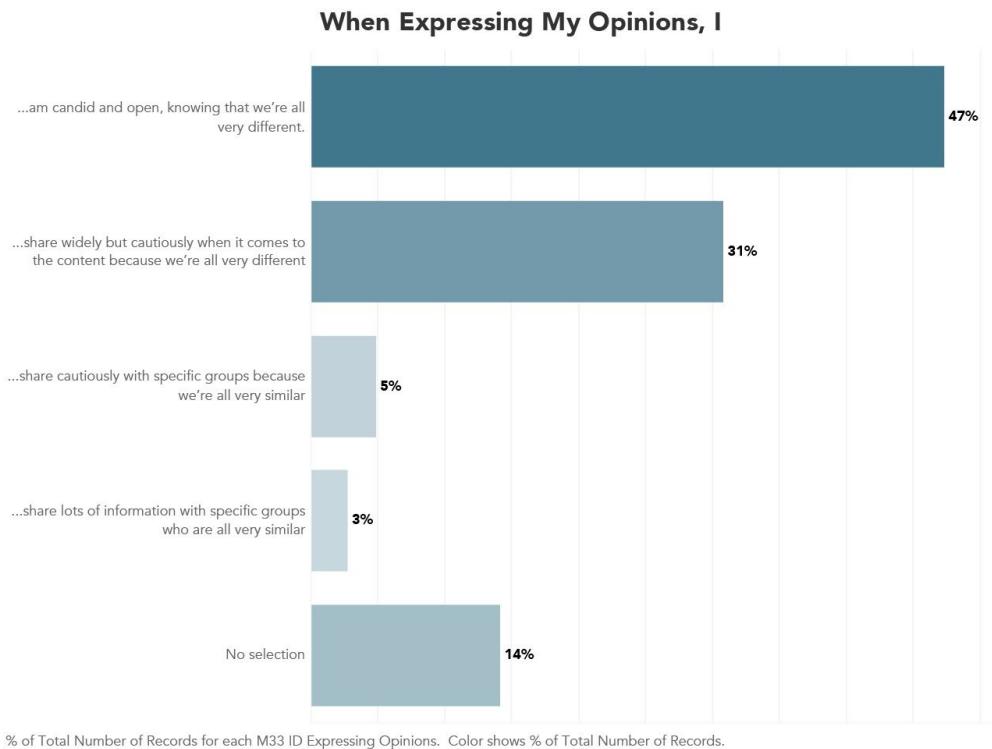


Figure 3.6c - Question 33: "When expressing my opinions, I..."

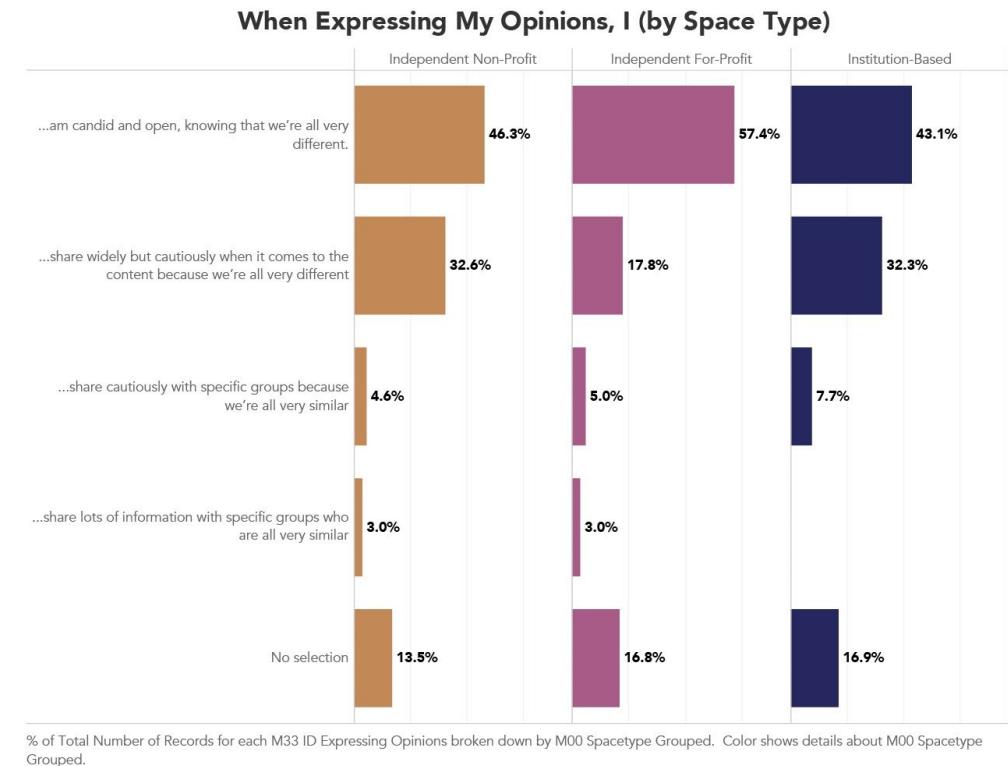


Figure 3.6d - "Question 33: When expressing my opinions, I..."

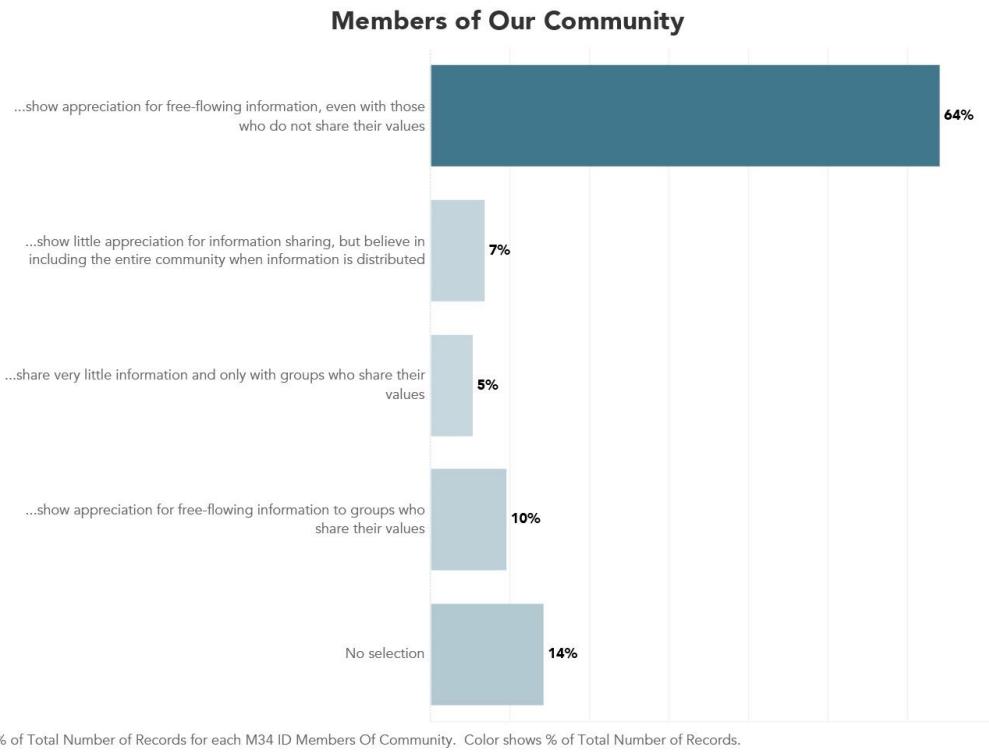


Figure 3.6e - Question 34: "Members of our Community..."

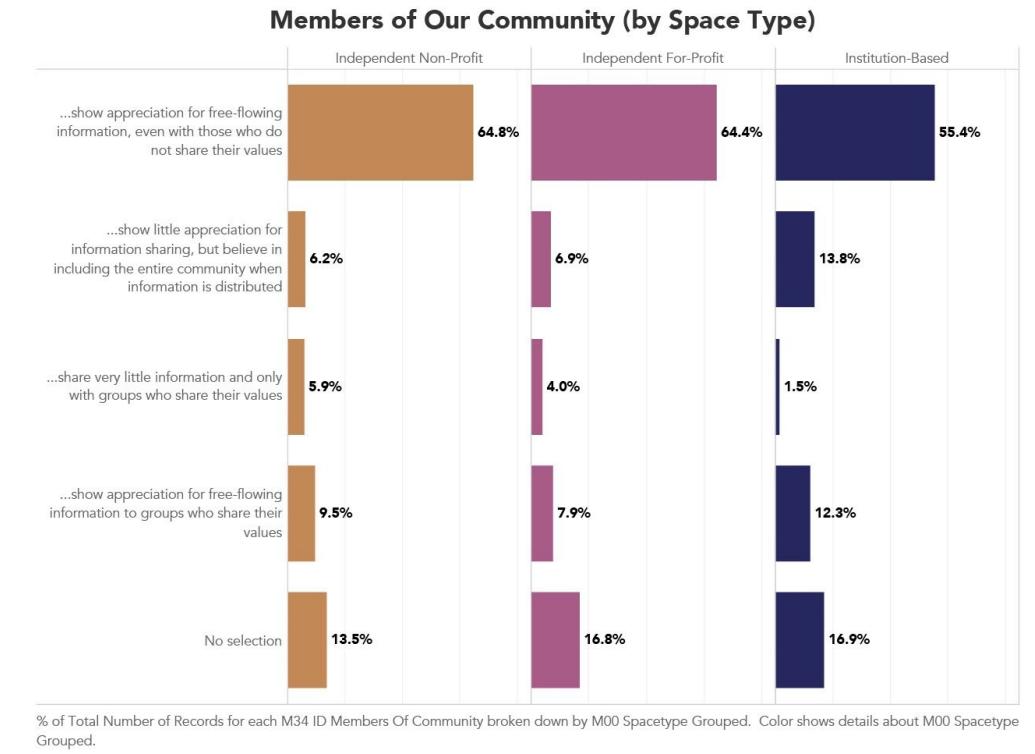


Figure 3.6f - Question 34: "Members of our Community..."

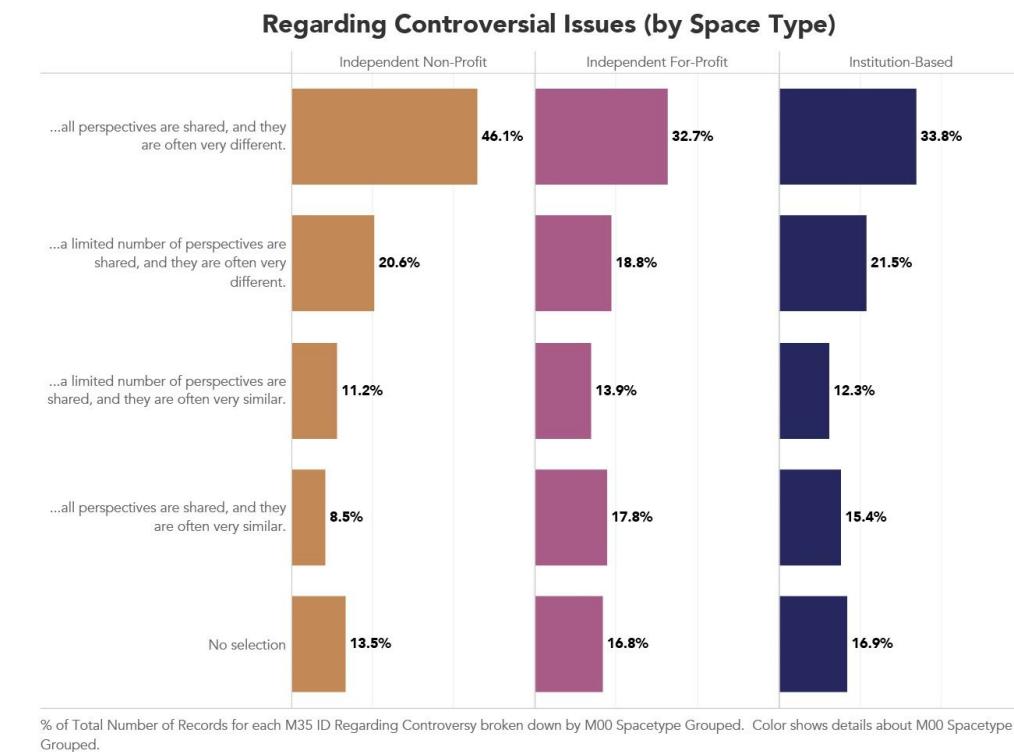
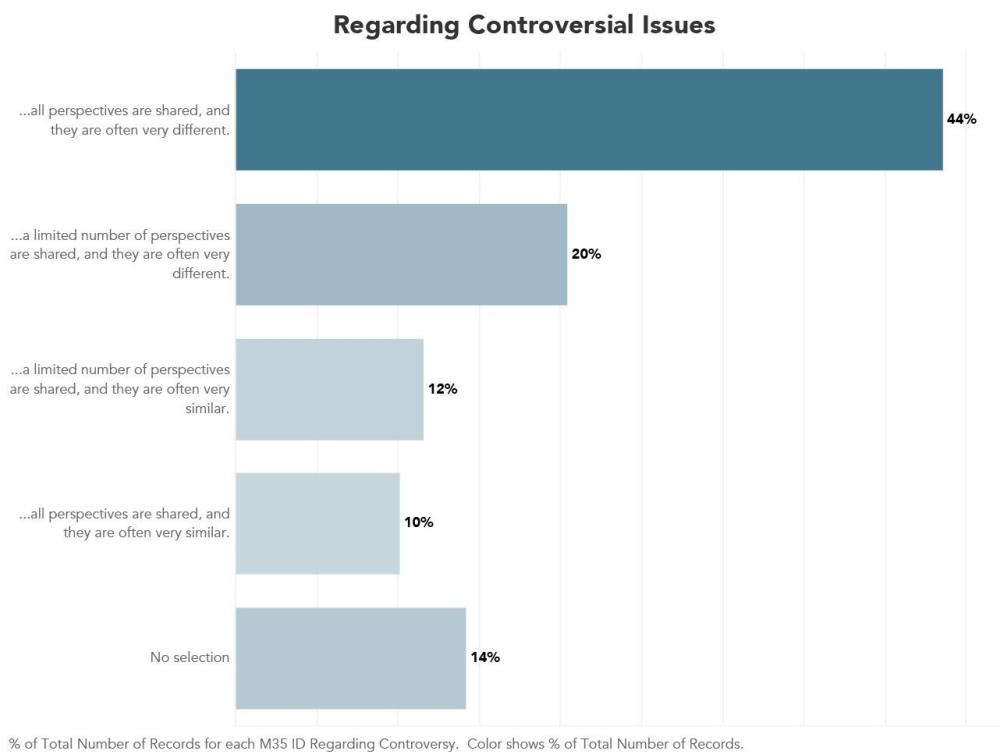


Figure 3.6g - Question 35: "Regarding controversial issues..."

Figure 3.6h - "Question 35: Regarding controversial issues..."

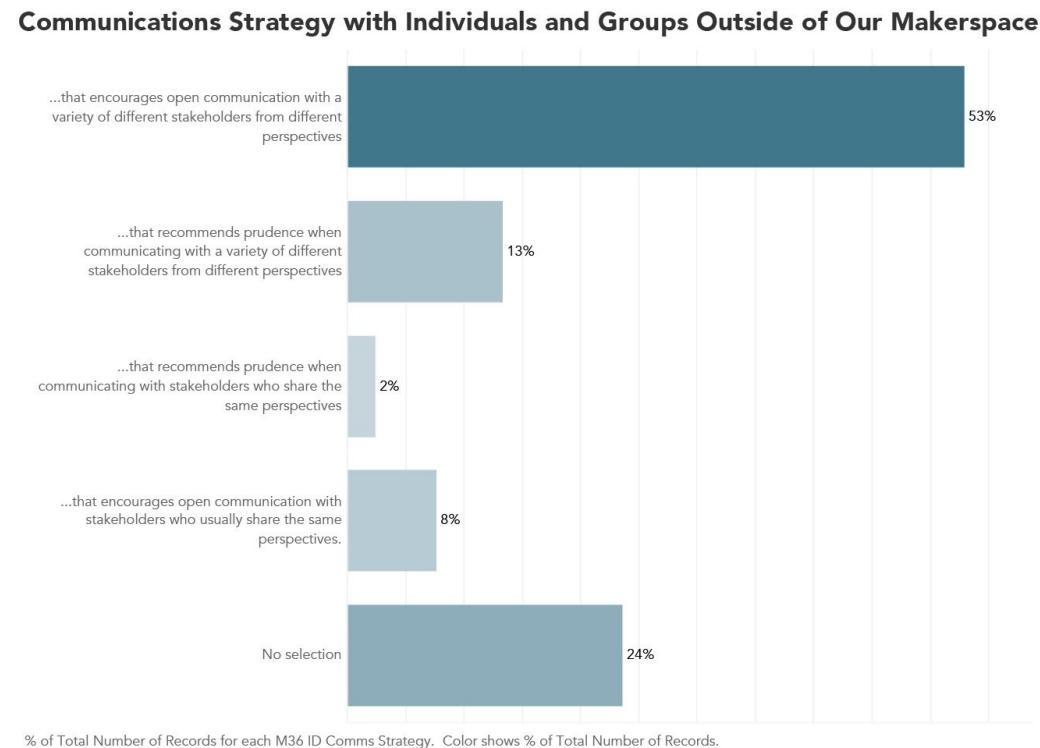


Figure 3.6i - Question 36: "We have a strategy for communicating with individuals and groups outside of our makerspace..."

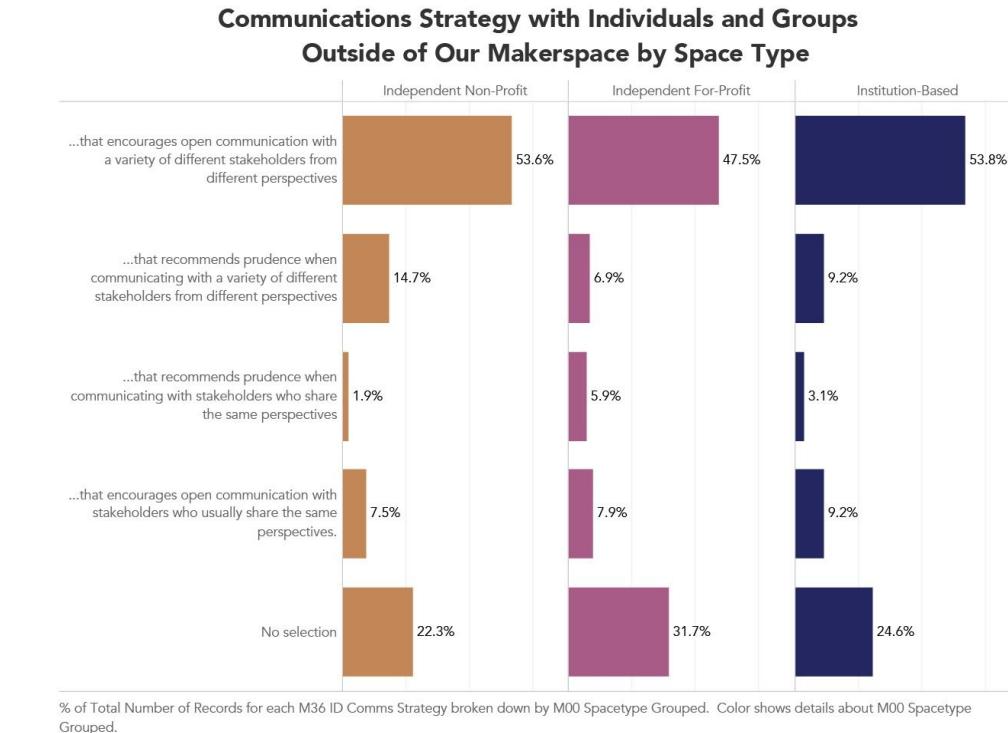


Figure 3.6j - Question 36: "We have a strategy for communicating with individuals and groups outside of our makerspace..."

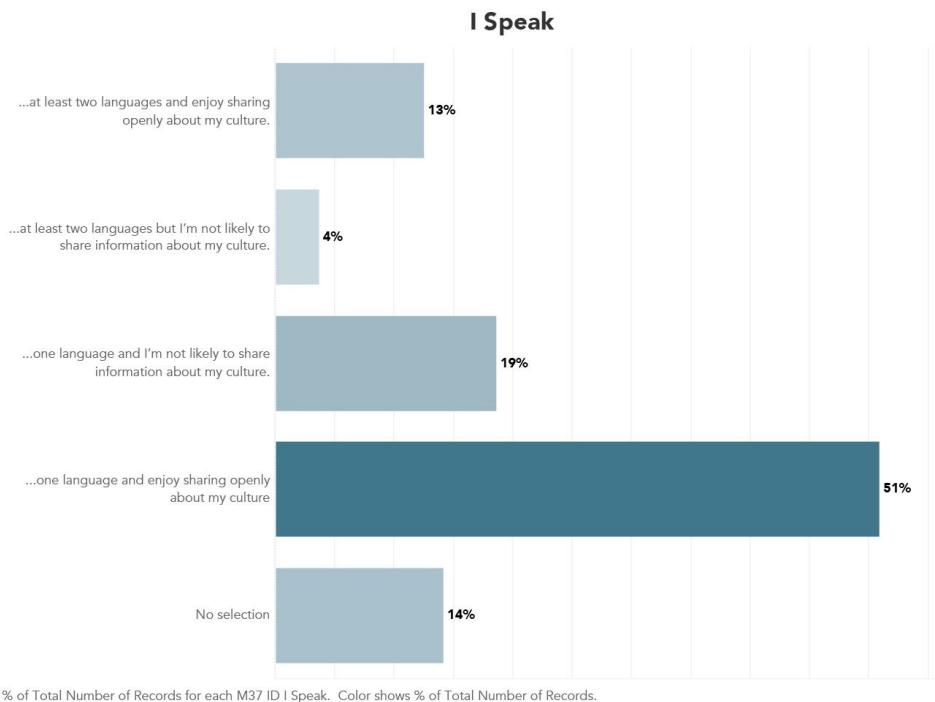


Figure 3.6k - Question 37: "I speak..."

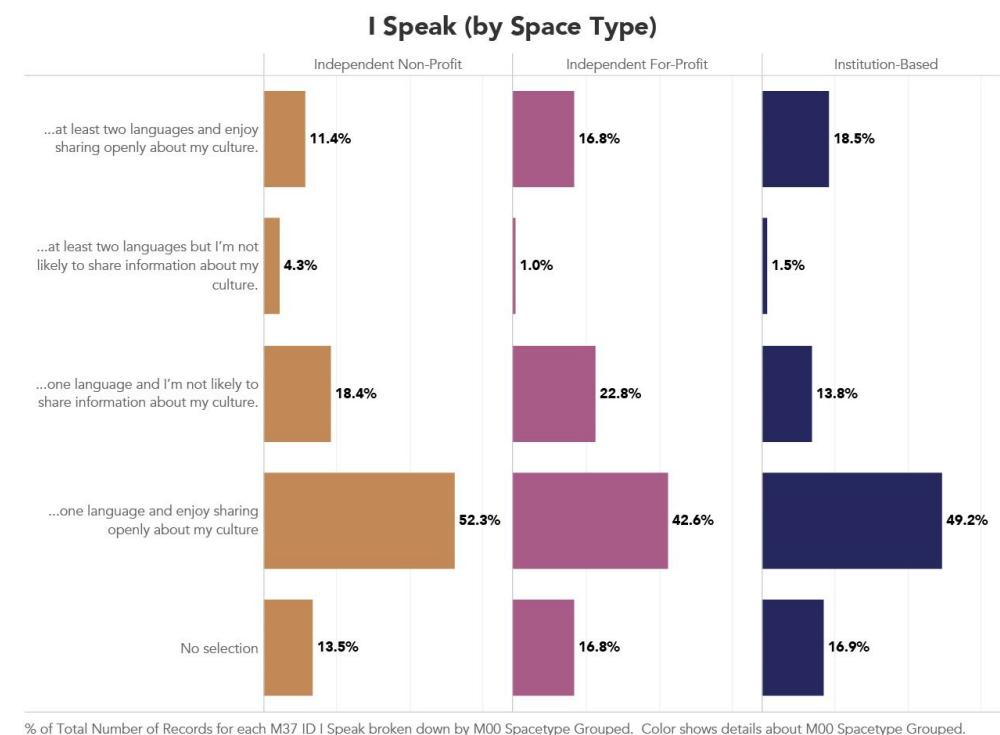


Figure 3.6l - "Question 37: I speak..."

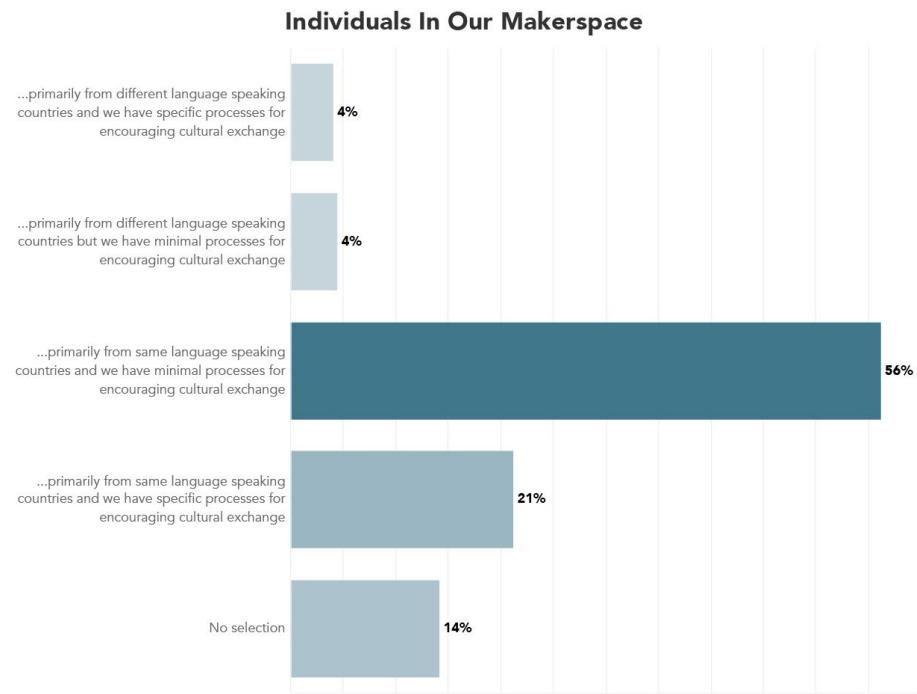


Figure 3.6m - Question 38: "The individuals in our makerspace are..."

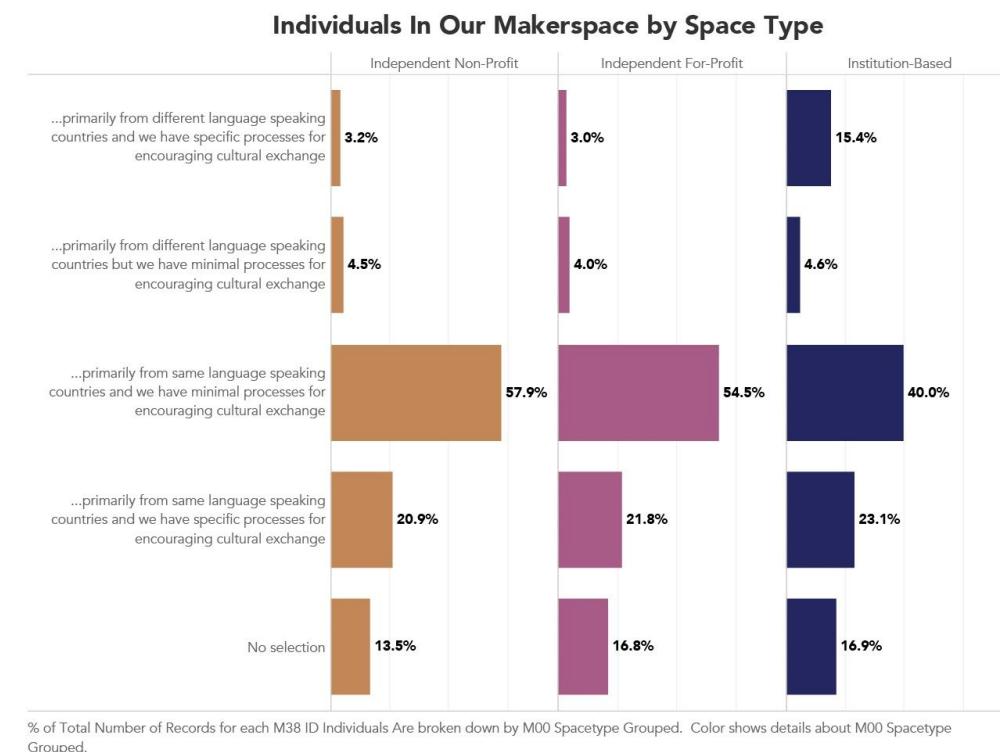


Figure 3.6n - Question 38: "The individuals in our makerspace are..."

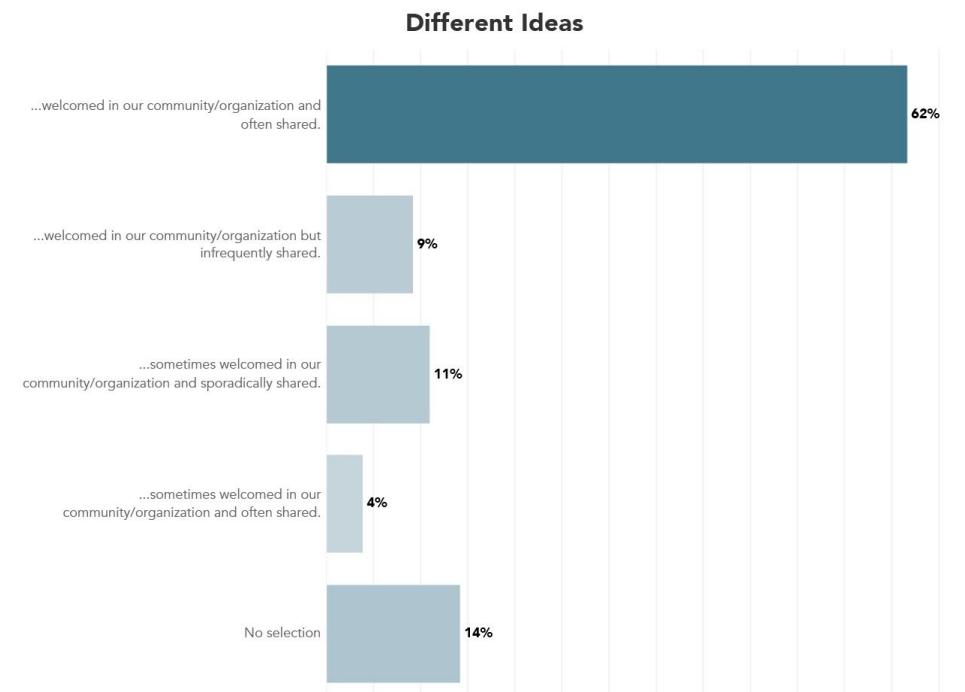


Figure 3.6o - Question 39: "Different ideas are..."

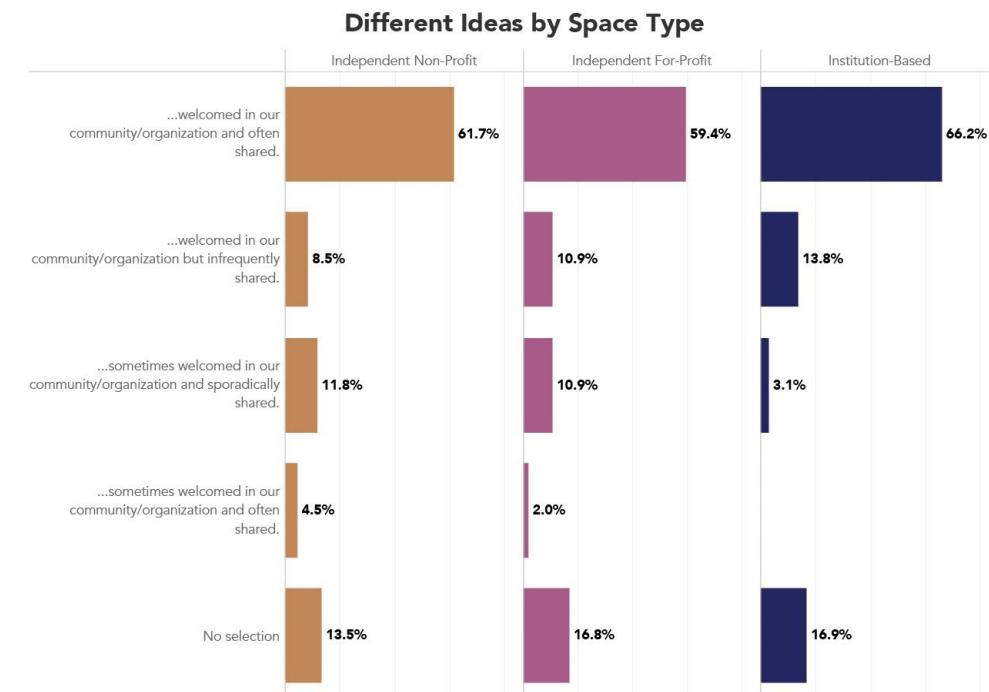


Figure 3.6p - "Question 39: Different ideas are..."

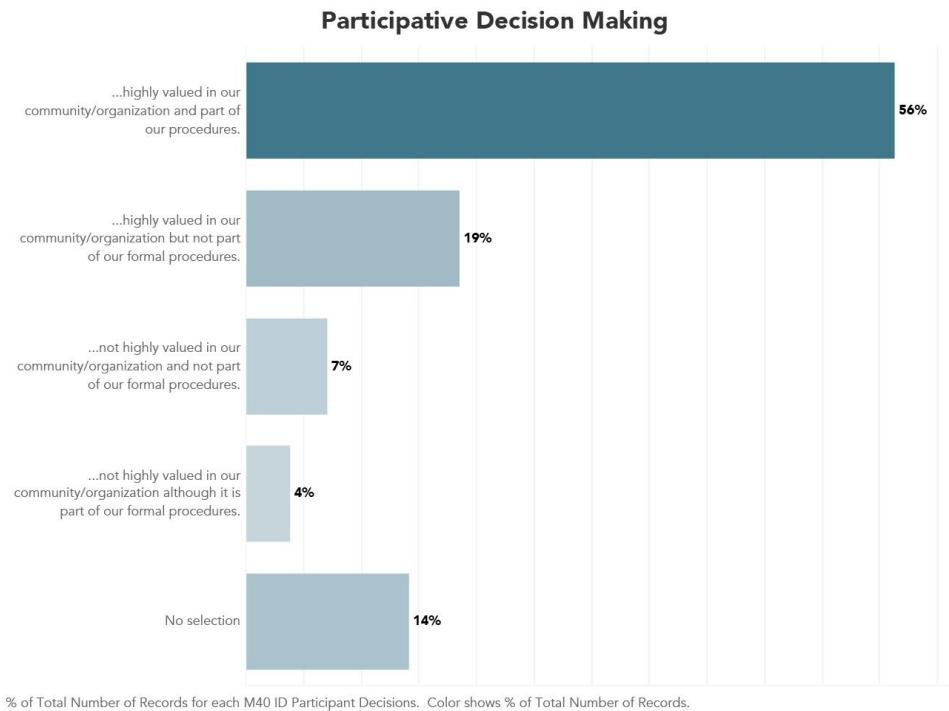


Figure 3.6q - Question 40: "Participative decision making is..."

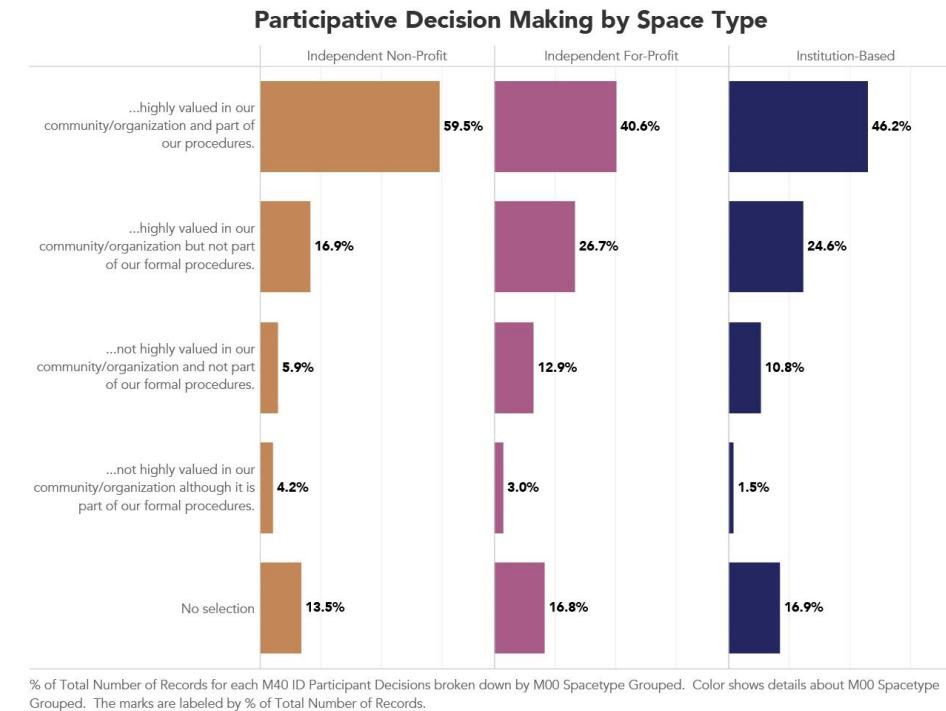


Figure 3.6r - Question 40: "Participative decision making is..."

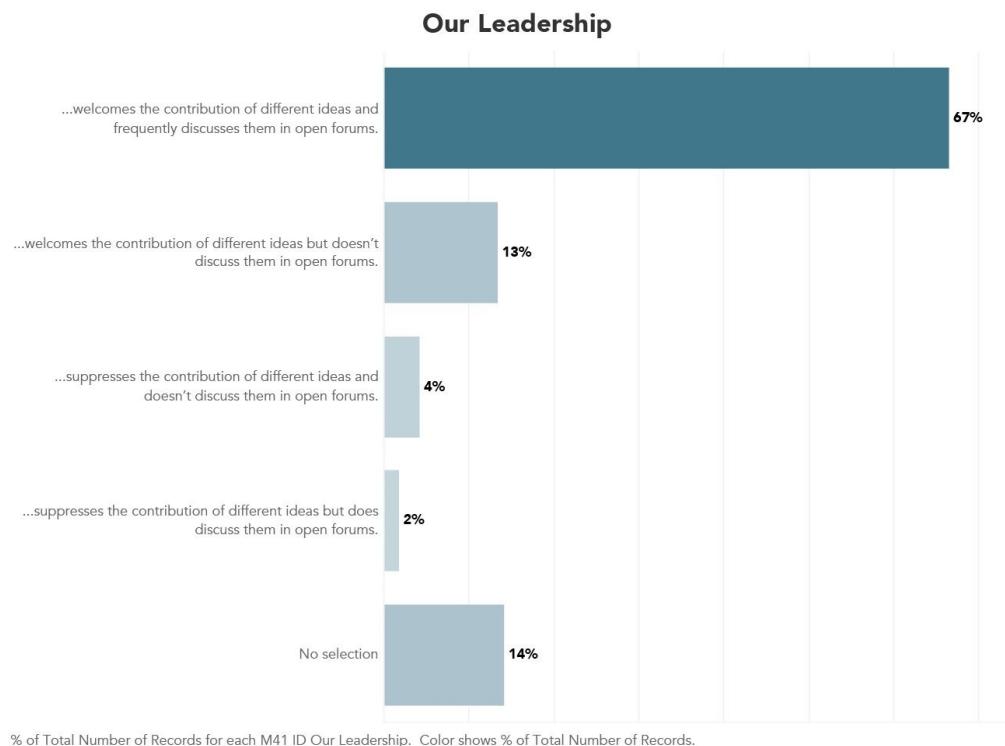


Figure 3.6s - Question 41: "Our leadership..."

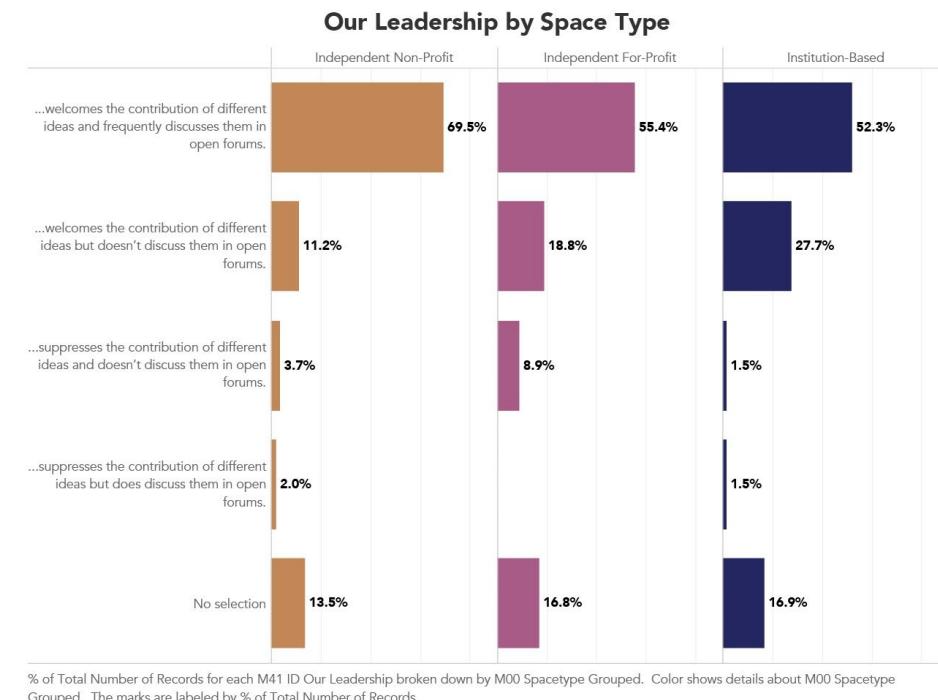


Figure 3.6t - "Question 41: Our leadership..."

3.7 - The Expectations

With membership comes the expectation of a makerspace filling particular needs and services. We surveyed the members of makerspace to determine whether makerspaces were meeting their expectations, and if they were not, where they were not meeting expectations. Overall, we found that makerspaces met many members' expectations; however, there were a variety of areas where makerspaces could improve their culture, offerings, and services.

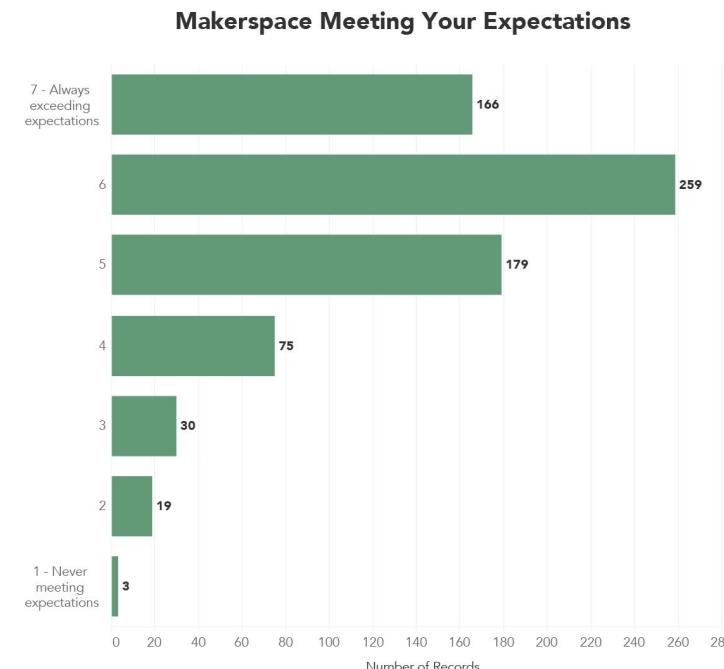


Figure 3.7a - Question 43: "How well is your makerspace meeting your expectations?"

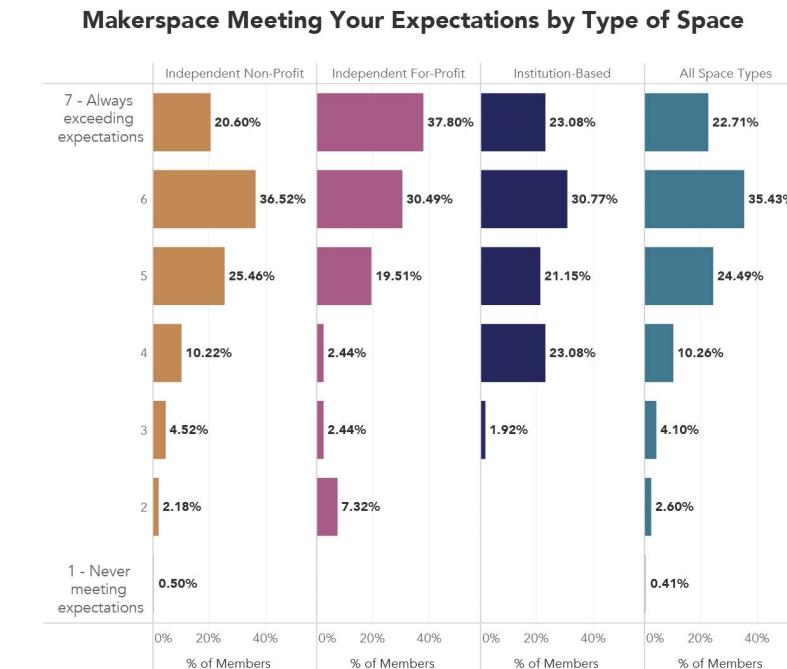


Figure 3.7b - Question 43: "How well is your makerspace meeting your expectations?"



Figure 3.7c - Question 43: "Where are they best meeting your expectations?"

Figure 3.7d - Question 44: "Where are they not meeting your expectations?"

Section 4

Methods and Analysis

(All reports here: <https://docs.google.com/document/d/1dpVmGs0WKquv9XCuFRDU9nval9ixOqiuUrXtDlpmVHI/edit>)

4.1 - Survey Design

The 2019 Survey of Makerspaces was composed of three descriptive surveys designed to provide an explanation of the nature of makerspaces as well as the nature of makerspace member and leader experiences across the United States. The Makerspace Economies Survey gathered data pertaining to the physical, logistical, operational, and financial nature of starting and maintaining a makerspace. The Makerspace Leadership Survey gathered data pertaining to the demographics, experiences and common practices of makerspace leaders. The Makerspace Member survey gathered data pertaining to the demographics, experiences and motivations of makerspace members.

The 2019 survey was a continuation of the 2018 survey. Suggested survey improvements and modifications were gathered from makerspace members, leaders, supporters at the 2019 NOMCON survey data workshops, which were open to anyone in attendance. These suggestions were taken into consideration and incorporated during the August 2019 data team retreat at Open Work in Baltimore. The 2019 versions included minor changes to the wording and order of survey. The biggest change was the inclusion of new survey questions in the Member Survey in pertaining to inclusivity and diversity. The survey was finalized and beta tested during the month of September.

- The Economies Survey had 51 questions
- The Leadership Survey had 21 questions
- The Membership Survey had 45 questions

4.2 - Data Collection Methods

Survey was made live, initially from Oct. 1, 2020 through Dec. 31, 2020. Survey period was extended until January 21, 2020 to better meet response goals. Response goals were to hit over 1000 individual respondents to both the leadership and membership surveys and to reach 150 different makerspaces.

Three individual surveys were published. Collected only online. Used Survey Monkey.

4.3 - Analysis Across Surveys

Makerspace-type Categories

Organizational structure can make a difference the type of leader or member it attracts as well as other factors. Therefore, the makerspaces affiliated with each leadership survey, member survey or economies survey were categorized in order to compare and contrast the survey results according to organizational structure. We coded each makerspace to fit in one of three makerspace-type categories: **Independent For-Profit**, **Independent Non-Profit**, and **Institution-Based**. The Institution-Based category is largely made up of makerspaces that are housed within larger institutions such as museums, libraries or schools, while the **Independent Non-Profit** and **Independent For-Profit** operate independently of another institution. Space type was asked in the Economies survey, however, it was not asked on the Membership or Leadership surveys. In cases where a Leadership or Membership survey was received that did not have a corresponding Economies survey, responses were individually checked by the data team against 2018 survey results, public-facing websites, social media pages, or confirming via email or online messenger communication with leaders of those spaces.

Makerspace Categories and Groupings in This Report	Leadership Surveys	Economies Surveys	Membership Surveys
Independent Non-Profit	186	60	699
Meetup, Event-Based or Informal Club	2	-	-
Independent Non-Profit: Hackerspace, makerspace or mobile makerspace.	184	-	-
Independent For-Profit	46	20	101
Independent For-Profit: Hackerspace, makerspace or mobile makerspace.	46	-	-
Institution-Based	100	34	60
Corporate: Owned by a company that isn't primarily a makerspace, primarily intended for employee use.	1	-	-
Government: part of local, provincial, or federal government agency or office. Includes military bases or correctional facilities.	2	-	-
Museum or Science Center: part of a larger science center, art, or history museum.	9	-	-
Public Library: part of a local, state, or national public library.	31	-	-
Post-secondary: College, university or trade/vocational school - degree or certificate granting institution, including school libraries at the post-secondary level.	19	-	-
PreK-12 School: Primary, secondary, or vocational training. Includes school libraries at the PreK-12 level.	37	-	-

Figure 4.3a - Summary of survey respondents.