

Behavioral Teams Around the World

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Please note: these results were first presented in the second edition of *Designing for Behavior Change*, published by O'Reilly Media. The book can be found on [O'Reilly's website](#) and [Amazon.com](#).

Over just the last few years, the world has seen tremendous growth in the number and type of organizations who apply behavioral science to their work. Eight years ago, for example, I wrote a book on the topic called *Designing for Behavior Change*. As part of that research, I found that only a small set of finance, health care, and technology companies were applying behavioral science. Now, the picture is quite different. As you'll learn more about in this report, we have identified nearly six hundred organizations that have behavioral scientists on staff. These teams are diverse. For example:

- Google's People Analytics group, including in-house behavioral scientists working to improve employee benefits and wellbeing.
- Two powerhouses of data-driven international development, IPA and J-PAL, applying behavioral science to the everyday problems of sanitation, health and safety all around the world.
- Numerous single-person behavioral consultancies, especially within the realm of marketing.
- A twelve-person behavioral analytics and experimentation group at Uber, which studied the transportation behavior of millions of people.

To better understand the range of teams out there, and their experiences, I co-organized the largest known survey of behavioral science teams in the world. We received detailed responses from over 300 distinct organizations across 51 countries ranging from the United States to Kenya to Saudi Arabia. We then augmented those detailed responses with other sources, to identify almost 600 different groups.

The Behavioral Teams survey was a joint project between two non-profit organizations in the field—the Behavioral Science Policy Association (BSPA) and the Action Design Network (ADN) — and myself. Starting in June 2019, we drafted the initial survey then tuned and distributed it in the field. We promoted it through our own direct contacts, social media, and email lists in the industry. The survey launched on July 23rd 2019; the last response included here was entered on August 19th 2020. The survey was written, and promoted, only in English. The target population was people who work on teams applying behavioral science to the development of products, communications, or policies.

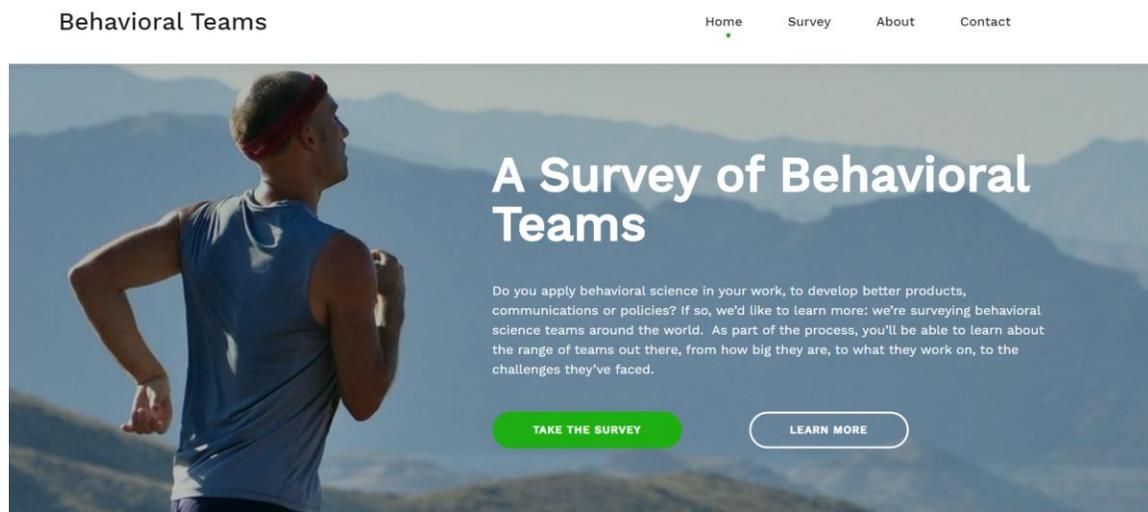


Figure 1: The BehavioralTeams.com home page, inviting people to participate in the international survey

The survey consisted of three main parts:

- 1) Contact information and basic information about the team, to support a public directory of behavioral science teams. This includes the type of organization (company, non-profit, academic, or government organization), the number of people on the team, their primary location, and their formal training in behavioral science (if any).
- 2) Questions on the work of the team: the types of behaviors they seek to change, the techniques they use, their manner of validating results, and the roles of each member on the team.
- 3) Questions about the challenges, and, successes of each team.

An archived copy of the survey can be found at www.behavioralteams.com. We have also published a directory that includes the subset of organizations who were comfortable with their basic information being shared, at <http://www.action-design.org/behavioral-teams-directory>.

After cleaning the data and removing invalid responses,¹ the survey dataset provides detailed information about 324 organizations, across individual 357 respondents.

Currently, there is no exhaustive list of organizations applying behavioral science to their work. Thus, it's not feasible to conduct a statistically representative survey of the field, nor to know the precise coverage of the survey relative to the entire field. However, three other sources of behavioral science teams can help us estimate that coverage. First, we drew upon an independently generated list from Ingrid Melvær Paulin, Senior Behavioral Scientist at Rally Health, in which she'd gathered information especially on private sector companies. Second, Faisal Naru, Head of Strategic Management and Coordination at the Executive Director's Office of the OECD, created a list focusing on government organizations.² Finally, we scoured our own social networks and the internet to identify other teams that might not have completed the survey. We combined the organizations from each list and found that the resulting directory covered 597 unique organizations: approximately 54% of whom responded to the detailed Behavioral Teams survey.

In the following sections, we'll offer the most comprehensive look yet at the scope of the field (based on the directory of organizations) and detailed look at the makeup, tactics, and operations of these teams (based on the survey).

Who's Out There?

Using the directory of behavioral science teams mentioned above, we find that teams applying behavioral science to the development of products, communications and policies are heavily concentrated in five countries (among the 595 teams with known locations): the United States (242), and the United Kingdom (82), the Netherlands (31), Australia (26), India (22) and Canada (20).

Many of these companies are international, with offices all around the world: for example, Walmart, Coca Cola, and Ipsos all have behavioral science teams and a global presence. For survey respondents, we asked them to provide the location *specifically for their behavioral science team*, where no location is given (e.g., for data pulled from other non-survey lists of organizations) we used the company's headquarters location.

¹ For those who are interested, here is the data cleaning procedure. Respondents were asked at the beginning of the survey whether their teams fit the desired criteria, and were offered a copy of the resulting report even if they did not meet those criteria (i.e., removing an incentive to complete the survey with invalid data): roughly five percent of respondents filtered themselves out at this stage. Second, responses with fewer than 25 values (answers to questions or sub-questions) were filtered out. Third, multiple responses by the same individual were grouped, and the only most complete set of responses were kept. Finally, multiple responses by individuals at the same organization were grouped, and in sections 1 and 2 above, only the most senior individual at that company (by title) was included; in section 3, the responses are about an individual's perspective, and all valid responses were included. The resulting dataset had 324 organizations, across 357 respondents. On the survey, respondents indicated the type of organization their team belonged to; we determined that the 'Other' and 'Independent Research Organization' options were interpreted in varying options by respondents, and we manually looked up, reviewed, and recoded these responses to the other options: Company, Non-profit, Government, or Academic.

² From the OECD list, we used the handful of non-governmental and private organizations (since the government agencies were often clients of existing teams without a team of their own) and we manually verified that each had a team.

Behavioral Teams Around the World

While Behavioral Science took off in the last two decades in the United States and United Kingdom, together they hold only a slim majority of the teams out there. Today, the range of teams includes

- 1) The Busara Center, based in Kenya and with offices in 8 countries, which combines academic research with consulting for major companies across the developing world.
- 2) Nudge Rio, a small behavioral science unit in the provincial government of Rio, Brazil.
- 3) The Reinsurance Group of America, pioneering a ‘Behavioral Approach to Insurance’³

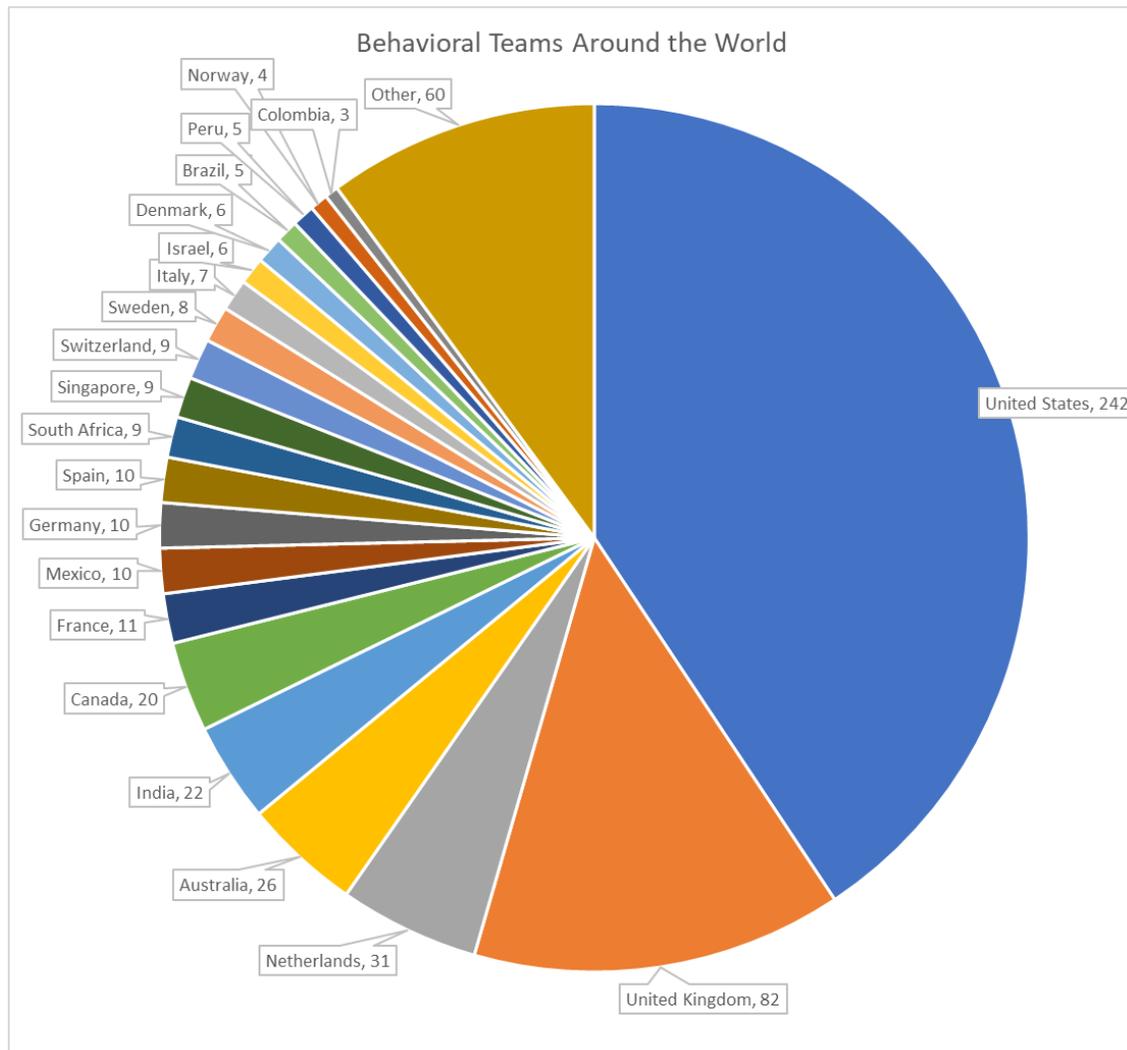


Figure 2: The distribution of behavioral science teams, by country

³ <https://www.rgare.com/knowledge-center/media/articles/behavioral-approach-to-insurance>;
<https://www.rgare.com/knowledge-center/media/articles/behavioral-science-and-insurance-part-one>

What types of teams are there? The majority of behavioral teams are within companies -- 383 of them in fact (64%, N=592 with known type). 90 different academic institutions have been identified, as well as 63 government institutions and 54 non-profit organizations.

Relative to the directory of organizations, the Behavioral Teams survey had an slight underrepresentation of United States-based teams (40% of respondents, versus 41% in the directory), an underrepresentation of teams in the United Kingdom (10% of respondents, versus 14% in the directory),⁴ and a slight underrepresentation among private companies (63% of respondents versus 64% in the directory).

For the rest of the analysis, we will focus on the respondents to the Behavioral Teams survey: since that is where we have detailed data. However, we should keep in mind that the broader field is at least 2x this size, with a strong concentration of government organizations not covered here.

Since the survey best represents behavioral teams in companies and non-profit organizations, unless otherwise noted we'll restrict the analysis to the primary respondent⁵ at each company or non-profit organization: 235 out of the 322 organizations that completed the survey with a known organizational type. Putting this in the context of the combined worldwide list, 53% of all known companies or non-profits with behavioral teams completed the survey.

Where the Interest Lies

The Dedicated Teams

How big are dedicated behavioral teams within companies and non-profit organizations? There is a wide variety, but most of the respondents came from small teams: median team size is 4; the largest team was under 200 in our survey (N= 226). Well over half, 61%, of these organizations say that behavior change is explicitly part of the organization's goals and mission -- often because the behavioral change team *is* the organization. For example, many small behavioral science-focused consultancies have popped up over the years, from [The Behaviorist](#) in Canada to [Habitude](#) in Spain.

How big is the field? In total, the respondents represented corporate or non-profit teams with 1,925 members, and indicated that another 1,424 individuals applied behavioral science on other teams within their companies.⁶ Combining these figures, and assuming that the survey represented 53% of the world wide total (see above), we can very roughly estimate the total

⁴ While the survey was written in English, it does not appear that there was significantly less coverage in countries where English is not an official language. In other words, relative to the directory, survey responses do not appear strongly biased by country. However, the process of creating the directory itself could have been biased towards English speaking countries or groups, and there is no a clear external standard by which to measure that problem, if it exists. My thanks the Anne-Marie Léger for raising the issue.

⁵ See prior footnote on data cleaning. In some cases, multiple respondents from the same organization completed the survey. Unless otherwise noted, we use the primary respondent.

⁶ After removing entries that were clearly inaccurate, and verified as such manually.

worldwide employment within companies and non-profits. These teams, specifically identified as applying behavioral science, appear to employ around 6,320 people.

That number may feel surprisingly low, given the high-profile teams at Walmart, Pepsi and other major brands. However, we should be wary of generalizing from these teams: if nothing else because of the availability heuristic. And, even within these companies, the behavioral teams are generally small. Further, the largest dedicated behavioral teams in the world, including the Behavioral Insights Team in the United Kingdom and ideas42 in the United States employ less than 200 people each.⁷ The largest known development agencies focusing on applied behavioral science, Innovations for Poverty Action (IPA) at Northwestern and Yale and the Abdul Latif Jameel Poverty Action Lab (J-PAL) at MIT are not much larger: and many of their staff members are not directly applying behavioral science in a meaningful way or are academic professors.⁸

Given the newness of the field, this isn't too surprising. Figure 3 shows when each of the behavioral teams started. With the exception of a few pioneers in the field like Paul Slovic's Decision Research in 1973,⁹ the real growth only started in 2013; 3% of teams started before the year 2000, 87% started on or after 2013.

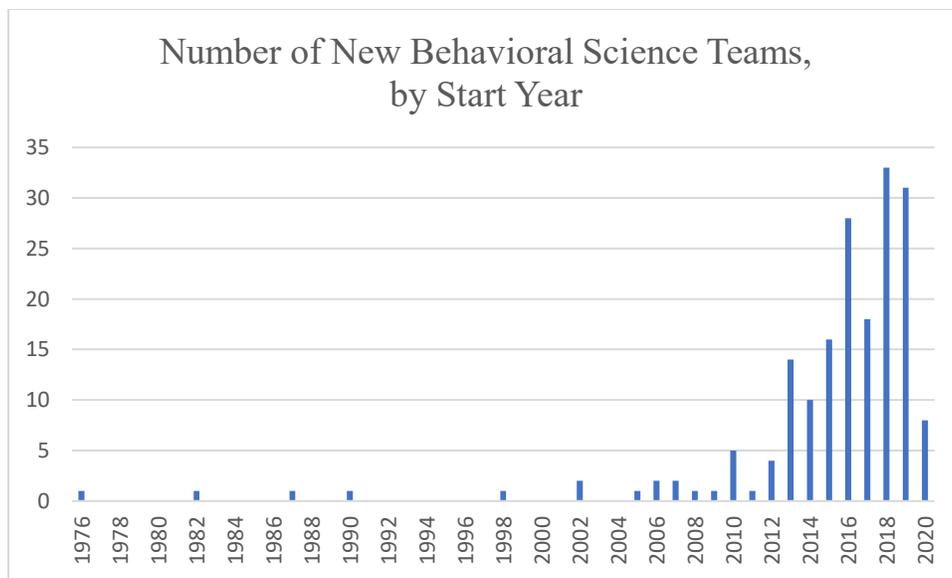


Figure 3: Starting date of behavioral science teams

That said, we can expect continued new entrants, and growth among existing teams. In the next year, the median behavioral team expects to expand by 25% (average increase is 53%) -

⁷ As of 24 October 2019, the Behavioral Insights Team of the UK listed 181 employees, only a portion of which are actually applying behavioral science in their work (<https://www.bi.team/about-us/our-people/?tab=js-tab-content-1-2>) and Ideas42 listed 126 employees (<https://www.ideas42.org/about-us/people/>)

⁸ As of 24 October 2019, the J-PAL listed 294 employees worldwide, including academic professors, grant writers, etc.

⁹ These early pioneers are in fact real – we manually verified the underlying data.

which if it held true would entail a growth of 1580-3,349 roles next year. We should take such projected hiring with a considerable measure of salt (especially since many of these responses were given before Covid-19 hit), but nevertheless even these optimistic numbers would result in a larger, but generally small field. To put these numbers in perspective, there are roughly 200,000 Psychologists in the United States alone.

The Non-Dedicated Teams

The dedicated teams covered by the survey should be thought of as a small portion of the total population of people interested in applying behavioral science to their work. A few anecdotes can help us make this distinction between dedicated teams, and broader interested population, clear. The Action Design Network, a small non-profit organization that I founded in 2013 to promote behavioral science, has over 16,000 people signed up for our events around North America. Similarly, the first edition of *Designing for Behavior Change* sold many multiples of the worldwide employment figure. And to be frank, this book is for an interested practitioner audience: it's not something that a general audience would normally buy (sadly for my publisher!) Nir Eyal's first book, *Hooked*, which appealed to a somewhat larger audience but still was squarely focused on the psychology of product development, was picked up by approximately 300,000 people.¹⁰

It is likely within the broader design, product management, marketing, and to a lesser extent, human resources, communities where the interest lies. These communities are huge: with over ½ million graphic designers alone.¹¹

There are thus two significant gaps: the number of people actively interested in applying behavioral science to product and communications development is much much larger than formal employment in the sector. Similarly, the field of people who could be interested (other designers, product managers, etc.) is much larger than those who have expressed an interest (at least according to these anecdotal numbers).

What does this mean for someone looking to enter the field? The short lesson is that joining an existing, dedicated team will be difficult. Instead, one should look at either starting a new behavioral practice within a company, or applying these lessons as part of one's larger work: especially as a product manager, designer, or marketer.

With that, let's look at how these teams get started, and what we can learn from them.

A Broad Range of Application

Origins

How do behavioral teams get started? There's no single path. Our respondents described a mix of bottom-up and top-down approaches – from starting a new small company specifically geared towards behavioral science (32%), to a CEO or department head driving it (20%, 16%) to individual contributors making it part of their work, and growing from there (18%). What

¹⁰ Statistic provided by the author.

¹¹ <https://www.ibisworld.com/global/market-research-reports/global-graphic-designers-industry/>. As of Jan 2020: 534,680.

was *uncommon* however was someone outside the company convincing the company to start one (2%); i.e., behavioral (organization) change comes from within.¹² That is how it happened in my case, at both HelloWallet and Morningstar: I was already an employee of each company, and started our teams from within.

Business Model

Among the dedicated teams in companies and non-profits who filled out the survey, there is a considerable diversity. Roughly speaking though, we can divide them into two big categories: consulting companies (55%), and companies that apply behavioral approaches to their own products and services (45%).¹³ We find similar results among the organizations in the overall directory using web searches and prior knowledge: roughly 53% of them do external consulting. The majority of employment in the field, according to our survey at least, is in consulting: specifically in consulting companies in the US, UK, and Netherlands. Three of the top five largest teams in the directory are all non-profit consulting organizations: the UK Behavioral Insights Team, ideas42 (in the US), and the Busara Center (based in Kenya). There are also dozens of consulting shops on the overall directory with 5 or fewer employees.¹⁴

Placement

In terms of where teams are located within the organization, and putting aside those who are in external consulting, the most common placement was data science (32%), followed by product (30%), marketing (25%), and design (20%).¹⁵

When it comes to the individuals on the team, 52% said that they had a formal degree in behavioral science (N=155). Among the others, 83% learned through books, 77% on the job, or through formal coursework (42%) or informal online classes (52%) that did not result in a degree in the field.

Focus Area

What types of behavior do these teams seek to influence? Some teams are focused on particular outcomes for the individual – the most common of these being financial behavior like saving, spending and investing (54%) – including spending money on the company’s products – health behaviors (51%), education (43%) and energy use (36%). Many also spent time on clearly company-driven outcomes of product usage (62%) and sales (52%). Respondents selected all that applied to them, and many of the companies and non-profits in the sample consult for a range of clients.

The teams use a range of techniques, as shown in Figure 4. The winner by far is social influence: social norms, social proof, etc. at 83%. The next most popular item was directing

¹² 12% of respondents replied ‘other’, and did not provide information that readily fit these categories.

¹³ The methodology for this analysis has been improved since the original publication of the report. It now counts companies in which over 75% of the roles are external consulting, even if the company did not check the ‘consulting’ box. It also counts those who entered they were the ‘entire company’ (or similar) in the ‘other’ box; after a manual review, those are overwhelmingly consulting shops.

¹⁴ Busara, while founded for academic research, now receives a majority of its funding through consulting work (Peterson, 2019)

¹⁵ See fn. 13: these values changed significantly since the original report because of companies being reclassified as consultants.

attention and shaping the choice set (both 74%). The often discussed approach of forming habits was used by 58% of respondents (N=199).

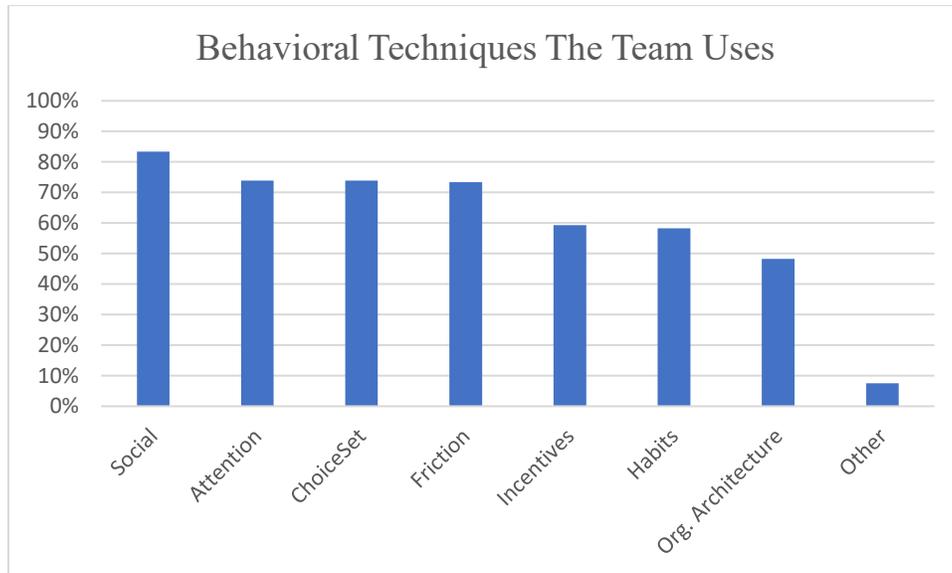


Figure 4: Techniques used by behavioral teams (respondents could choose more than one option)

In most cases, the target audience for these interventions *did not know about them* – something which can raise ethical red flags, especially where the behavior is directed for the organization’s benefit rather than that of the individual. 41% of respondents said that virtually no users know about the use of the behavioral interventions; 18% said a few do, and only 22% said that most people did or everyone did (N=197)

Respondents also reflected upon how important various aspects of their work were; the results are provided in Figure 5. Direct behavior change, not surprisingly, was consistently most important, as was sharing the results internally. Most teams did not value (or perhaps did not have the opportunity) to share their results externally or to seek to influence policy. Again, this analysis is limited to the companies and nonprofits in the sample: the picture for academics and government agencies would be quite different.

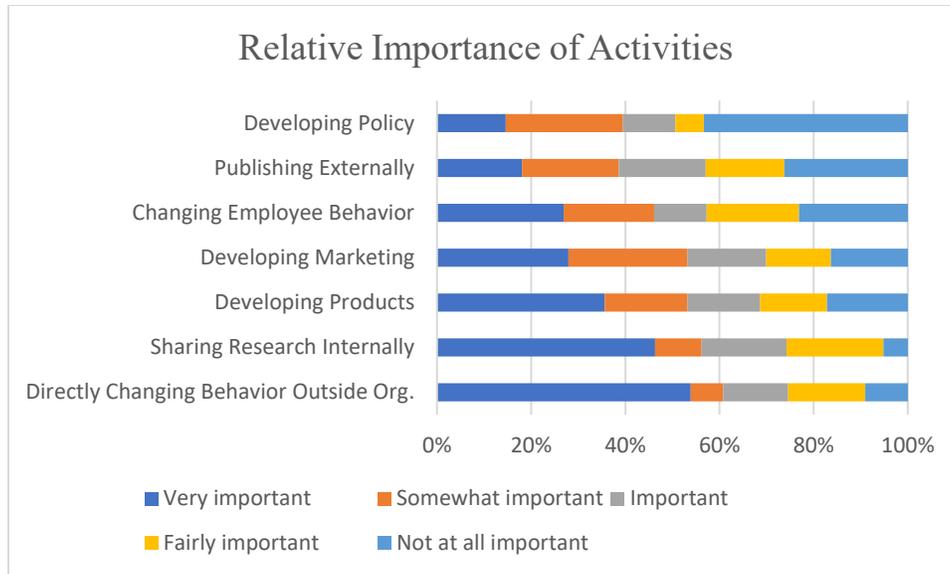


Figure 5: How important is each activity to the teams?

The Practical Challenges of Running a Team

The single biggest challenge that teams faced was getting their interventions implemented in practice (42%), or measuring their impact (41%); generating ideas for interventions was not commonly a problem (14%). In the comments and subsequent interviews, respondents similarly mentioned that some of their key challenges were implementation and impact measurements.

The challenges of implementation appear to come from two main sources. First, I've often heard behavioralists who serve as external consultants complain that, after they write their report, they move on to another project and don't know if the client ever implemented it. There is a similar complaint from internal consultants: except they *know* their advice wasn't really taken. The other reason implementation is a problem, based on conversations with peers in the field, stems from the normal challenges of product development: many good ideas simply aren't put into practice, whether they are behaviorally informed or not. There isn't space on the roadmap, there isn't buy-in at the appropriate levels of the company, etc.

Ironically, the opposite problem also occurs: that companies rush to implement, without measuring impact. Numerous interviewees among the survey respondents talked about their clients or their companies acting too quickly. Once the team had presented an idea, the response was: "ok, well let's do to it then – why would we waste time with a test?" This issue we've faced at Morningstar as well, and other researchers in the field have written about:¹⁶ it's difficult to simultaneously say that you have a potential solution to a known problem, and that you're not sure it would work. Stakeholders simply aren't using to hearing from their experts that an approach might not work! The reality is that all solutions, derived from behavioral science or not, could fail to have an effect or, worse, backfire. It's just that behavioral teams

¹⁶ E.g. Wallaert (2019).

are generally more comfortable saying so, and that can be misinterpreted. These impact measurements are a vital part of behavioral science.

Testing and Experimentation

Given the challenges in implementation and measuring impact, it is noteworthy that 69% of respondents said their teams measured their success in terms of A/B tests or other forms of RCT. We should be cautious: the median number of experiments the teams conducted in the last twelve months was only five. While many of the teams are relatively new, that indicates either that A/B tests are not as widely spread as the response might indicate, or that the teams have implemented them sparingly.

In addition to RCTs, 67% used pre-post analyses; 54% looked for direct feedback from users to gauge the effectiveness of behavioral interventions: two technique that can be immensely valuable to gain understanding about *why* an intervention worked or didn't, but often aren't up to the task of measuring the impact itself effectively. Interesting, 24% used statistical or machine learning techniques (beyond A/B tests). We'll discuss the integration of statistical methods and machine learning and behavioral science in the next chapter, keeping in mind that this combination is still relatively new and not widespread.

What's lies ahead

Given the tremendous change in our field over the last decade, and even the last five years, it is difficult to make thoughtful projections about the coming decade. Survey respondents, at least, expressed optimism – as noted above, over 50 percent of applied behavioral science teams expecting to grow within the following 12 months, though most completed the survey before Covid-19 hit. As a practitioner in the field, I personally feel optimism as well. We're maturing – both within our community, with increased and frank discussion of the strengths and weaknesses of our work¹⁷, and in our relationship to the broader corporate and non-profit environment in which we are embedded. Companies and organizations all around the world, across diverse geographies, business goals, and sectors are now applying behavioral science in their work; that doesn't seem likely to change any time soon.

We will have growing pains. For example, we are now confronting the same ethical challenges that the design community, marketing community and others have long faced: how to pursue our own (behavioral) goals while honoring the desires and free will of the users of our products and services. That discussion is ongoing across our field, and we should welcome it as a sign of our continued maturation.

While we can't forecast the future, we can learn from our own and others' experiences as they happen. Thus, one final request. This survey and report are an all-volunteer effort. We need

¹⁷ For example at <https://medium.com/behavior-design-hub/behavioral-design-2020-and-beyond-dc88a87f3b97> and <https://www.thebehavioralscientist.com/articles/the-death-of-behavioral-economics>. I personally disagree with some of the authors, but welcome the open discussion as necessary for our field.

your help to continue to learn from our evolving field. Please take a moment to share a link to BehavioralTeams.com online, and, if you haven't already done so, complete the survey itself. You'll receive updated results as they come out, and help deepen our collective understanding. And, it's up to you whether your answers are anonymous or not.

In about a year's time, we will reach out to current respondents: to give them the opportunity to update their information. In that way, we can maintain this as an ongoing resource for our community. Those future updates, and indeed this report itself, are only possible with your participation and willingness to share your experiences. So, once again, thank you.