

THE 2019 ADVERTISING RESEARCH FOUNDATION

Organizational Benchmark Study

The Research Company Report

BY THE ARF ANALYTICS COUNCIL,
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Introduction

Over the past two years, several of the Advertising Research Foundation's (ARF) members have expressed concerns about the rapid changes in advertising and marketing research. Key concerns ranged from naming the department (*e.g.* data science, research department, research and analytics) to the selection of programming languages (Python/R/SAS/SPSS) vis-à-vis best practices. Does "research department" carry the same gravitas as "data science" or "customer experience"? Is it in their best interest to centralize or decentralize the research infrastructure? Moreover, are stakeholders convinced that research provides a positive ROI?

These are just a few questions posed by our membership. To address these concerns, the ARF, with the support and guidance of the Analytics Council, launched its first Organizational Benchmark Study of the industry with the intention of refreshing the results annually. Furthermore, the ARF will offer an ongoing service to conduct a detailed study of a member's company, seeking a substantial sample size across all levels of the organization. This will allow for a detailed comparison with the benchmark results.

Executive Summary

The major findings of this study include research company executives' views on a variety of subjects from department structure to stakeholder satisfaction.

Structure: Large research companies (those with 500 or more employees) are far more likely to have decentralized structures than small research companies.

Spending and KPIs: Small research companies spent an average of 2% to 3% of their revenues on R & D.¹ Small research companies were, on balance, investing more in R & D, technologies, capabilities, and staffing than they did the previous year, while large research companies invested about the same as in the previous year. Both small and large companies, however, invested more heavily in data science and analytics than in the previous year. Sales is the leading KPI used to evaluate research and analytics in the organization.

Skills and Tools: Both large and small research companies find advanced analytics the most important skill needed for hiring now and in the future. Companies of both sizes are seeking research methodology and basic analytics skills, while larger companies have also been seeking staff with data visualization skills. In the next two years, all companies perceive a greater need for AI and ML skills and less of a need for research methodology skills. All research companies are using survey analysis software such as SPSS, but a majority of larger research companies are using open source programs such as Python and R. Data integration and media analytics are the most heavily relied on techniques in larger research firms, while integration of

¹ A majority of respondents from large research companies did not know how much their companies invested in research and development. This follows from the fact that research was likely to be decentralized in these companies.

qualitative and quantitative data is the top technique used among smaller research companies.

Evaluations of capabilities: Perceptions of their firm’s research and data science capabilities and stakeholder value are highly positive, particularly in smaller firms.

Methodology

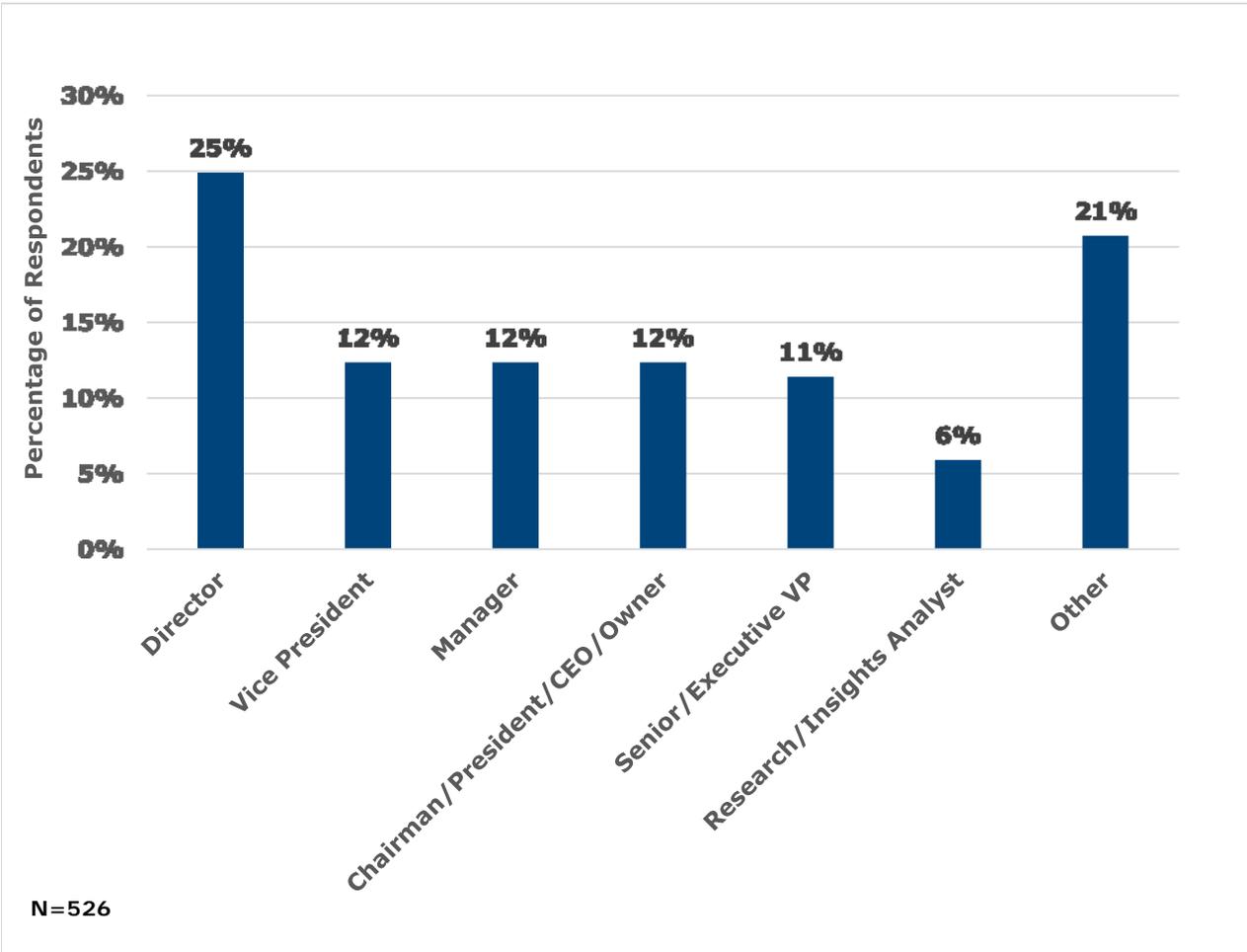
The survey was built on a Qualtrics platform, the link to which was first communicated in April 2019 and closed October 2019. The survey itself was authored by the ARF’s Analytics Council. The ARF received responses from 836 respondents from across all levels of member and non-member organizations. Of these, 453 respondents completed 100% of the survey. Responses came from all over the world, but primarily from the United States (see Figure 1). The sample frame included both an ARF membership list and the wonks community which includes members and non-members.

There was a wide distribution of over one hundred job titles (see Figure 2). Twenty-five were at the director level, while vice president (VP) and senior/executive VP constituted another 23%. Twenty-one percent of the respondents held other job titles such as consultant, principal and account executive. For brevity’s sake, these various titles were bucketed into the “other” category.

Figure 1. Geo Location of Respondents Recorded During Survey

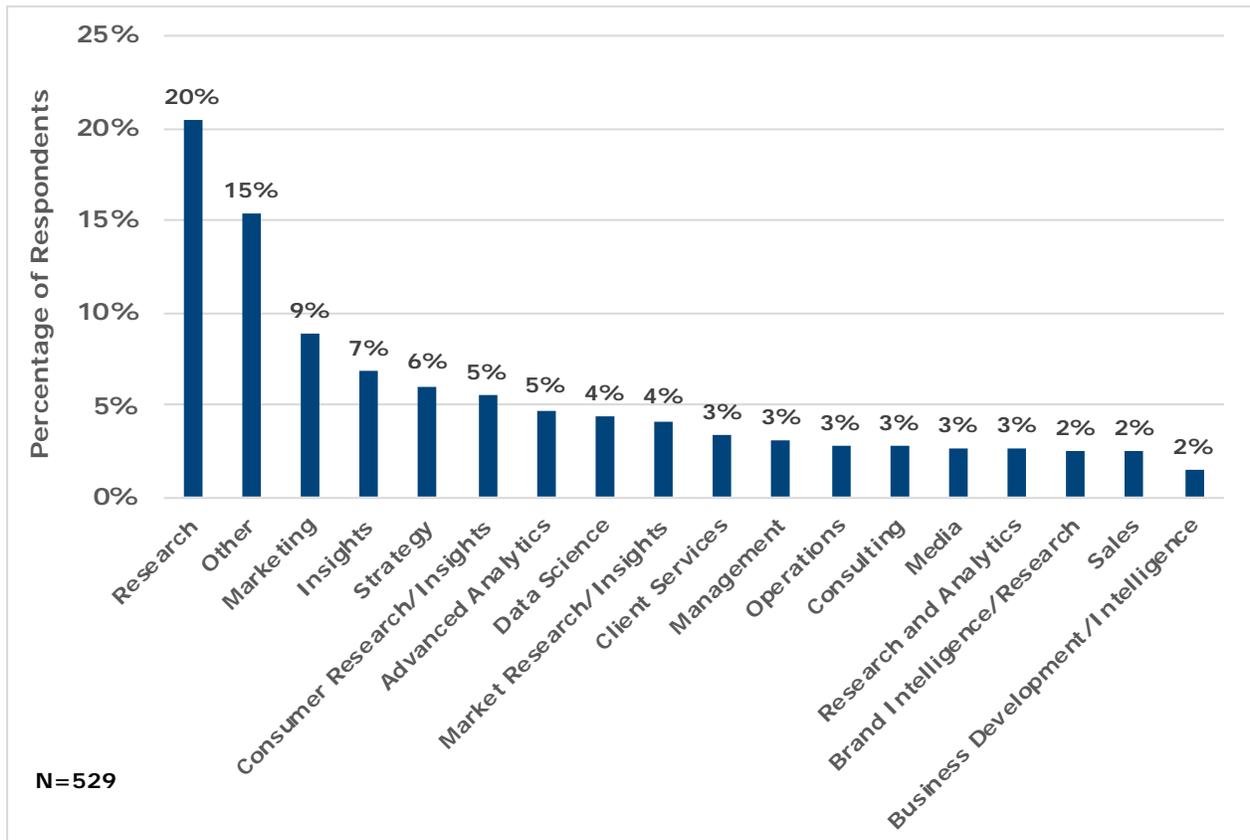


Figure 2. Job Title Distribution



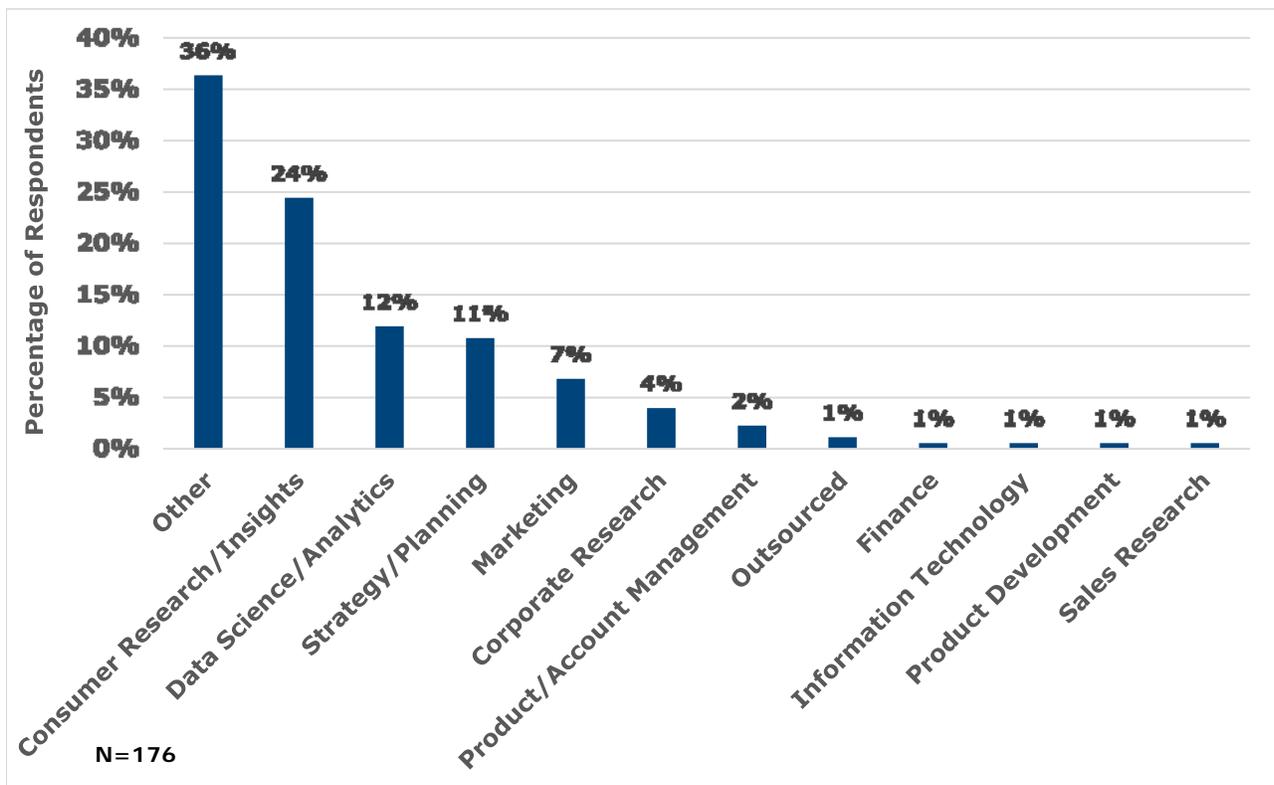
Twenty percent of respondents said their department was called “research” (see Figure 3). However, “research” was part of several other compound names such as “consumer research.” Nine percent worked in the “marketing” department. In the interest of parsimony, all the respondents were bucketed into 18 different departments (see Figure 3). This represents an effort to balance the richness of the initial response with a practical classification for analytical purposes.

Figure 3. In Which Department do you Work?



Twenty-four percent of the respondents said that research at their company is supervised by the consumer research and insights department (see Figure 4). Data science/analytics and strategy/planning departments oversee research in 12% and 11% of cases, respectively. Thirty-six percent reported research oversight by an array of department names, such as analytics and insights, data and insights, and marketplace insights and were coded as "other."

Figure 4. You Indicated That Market Research/Insights and/or Data Science/Analytics are Overseen by one Department. What is This Department Called?



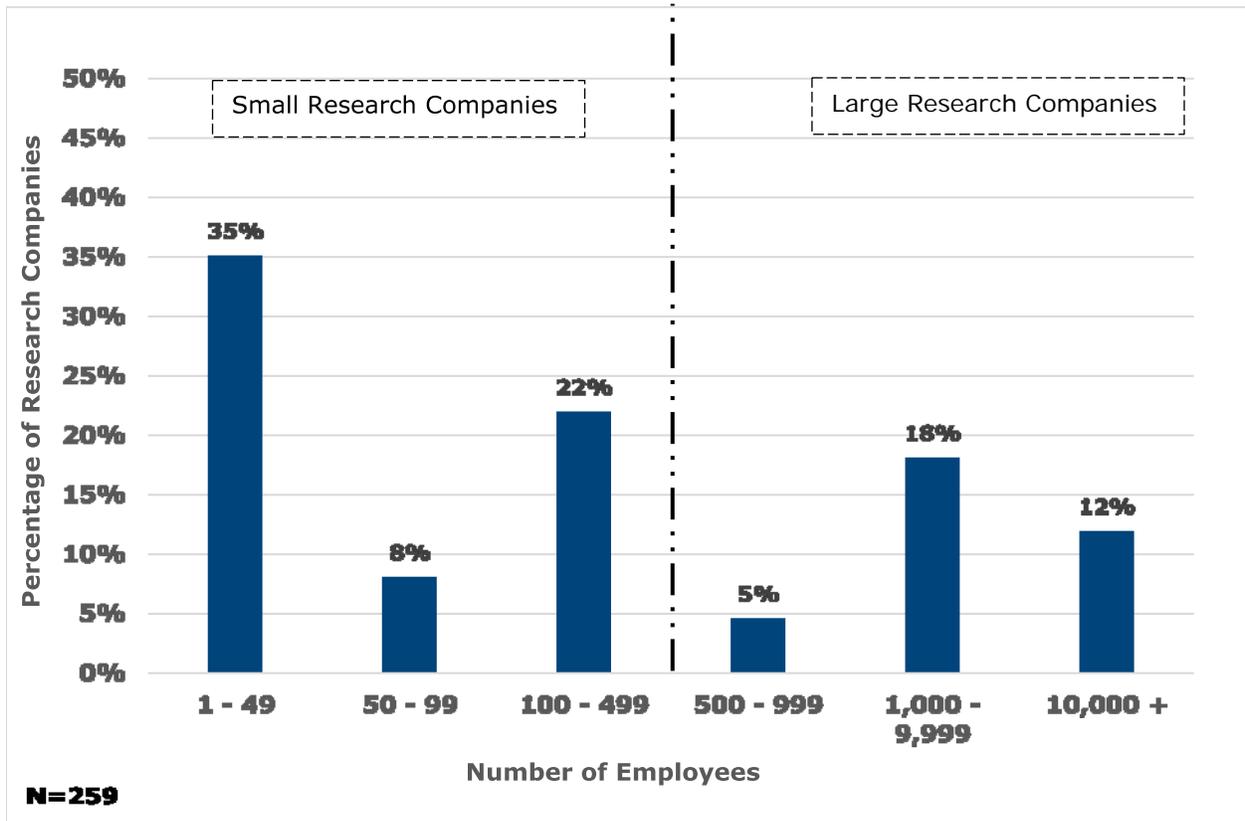
We have conducted analyses of major lines of business (LOB) focused on five distinct categories: advertiser, advertising agency, media, research/measurement company and other (largely consultancies and ad tech). Respondents were instructed to answer for the company they worked for directly and not for a holding company of which their company may be a part.

Additionally, it was evident that there would be substantial differences by organization size. To that end, the sample was segmented by number of employees in order to yield approximately the same number of respondents within each of the size segments. Segmenting by number of employees and business line minimizes the need for weighting or post stratification (It is unclear what we would use as a universe estimate for weighting, as the results reflect responses from both members and non-members). In this report, research/measurement companies (hereafter referred to as “research companies”) with 500 employees or more are labelled as “large,” while those with less than 500 are labelled as “small.” The results will be reported by this segment where sample sizes permit.

The Research Report

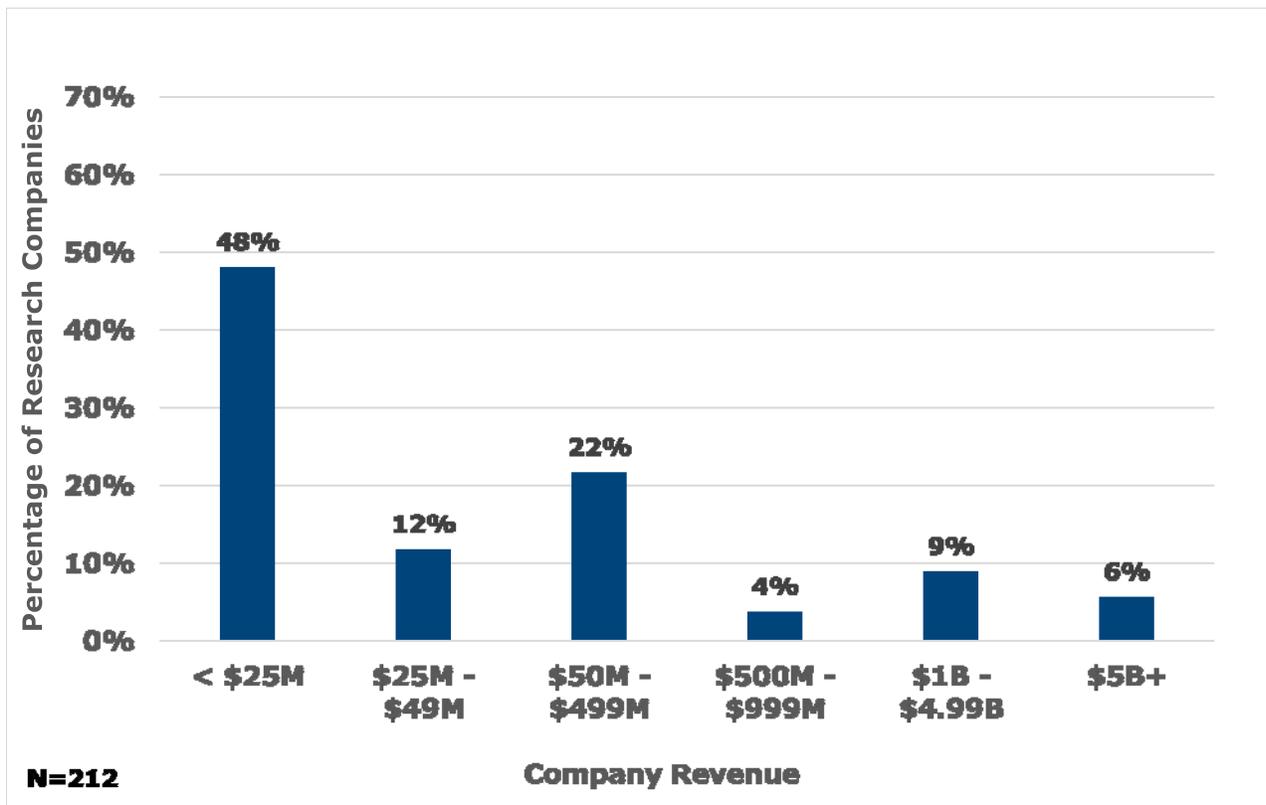
The remainder of this report will be focused on research companies, with separate reports being generated for advertisers, agencies, media and entertainment companies. Thirty-five percent of the research company respondents are from companies with 500 or more employees (see Figure 5).

Figure 5. Distribution of Researchers' Employees



The research company respondents were roughly evenly divided between those with revenue below and above \$25 million per year. Just 15% work at companies that have annual revenues of \$1 billion or more (see Figure 6).

Figure 6. Research Company Revenue



Department Structure

The structure of research can have a substantial influence on a company's business strategy. Studies show that a company's strategy for using technology to add value is reflected by the structure of its research analytics.² Some ARF members have expressed concern that data-driven marketing could potentially have a dramatic effect on the talents required and the structure of research in their organizations.

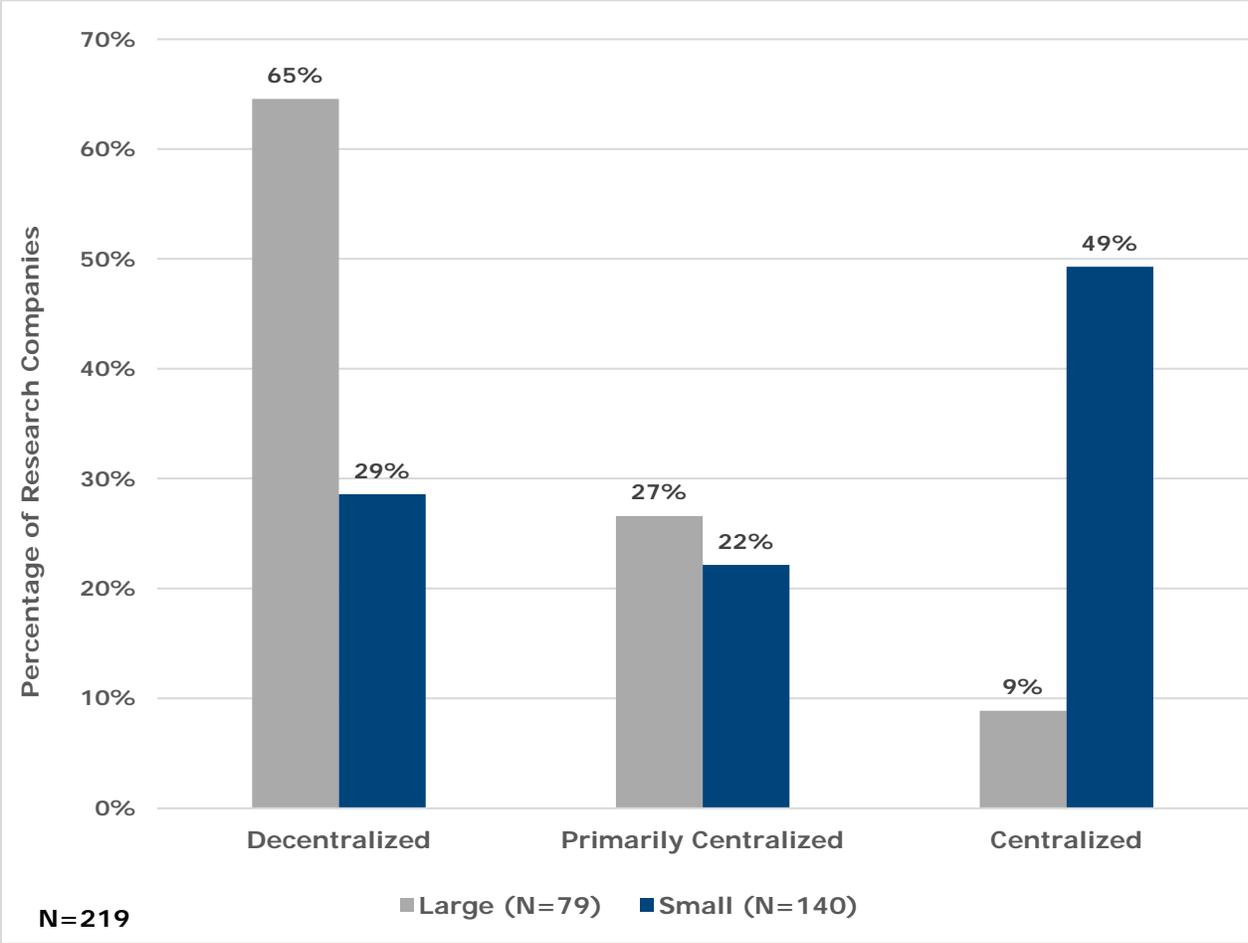
Respondents were asked to describe the way research/insights and data science/analytics are handled in their company/business unit (see Figure 7). There was a substantial difference between large and small research companies in their organizational structure. Large research companies were much more likely to have a decentralized structure with multiple centers for research and insights. Small research companies, on the other hand, were much more likely to be centralized, with one department conducting data analytics and research. The decentralized model constitutes nearly two-thirds of the larger research companies (65%), compared to just 29% of the smaller ones. The completely centralized model

² Tirpak, T., Miller, R., Schwartz, L., and Kashdan, D. (2006). 'R&D Structure in a Changing World', *Research and Technology Management*. September-October. Pgs. 19-26.

characterizes half of the small companies (49%), compared to less than one in ten (9%) of the larger ones.

Employees of the remaining companies, about one quarter of those in both small and large research firms, reported that research and analytics were primarily overseen by one department, with research and data specialists in some other departments.

Figure 7. Which Best Describes the Way Research/Insights and Data Science/Analytics Are Handled in Your Company/Business Unit?

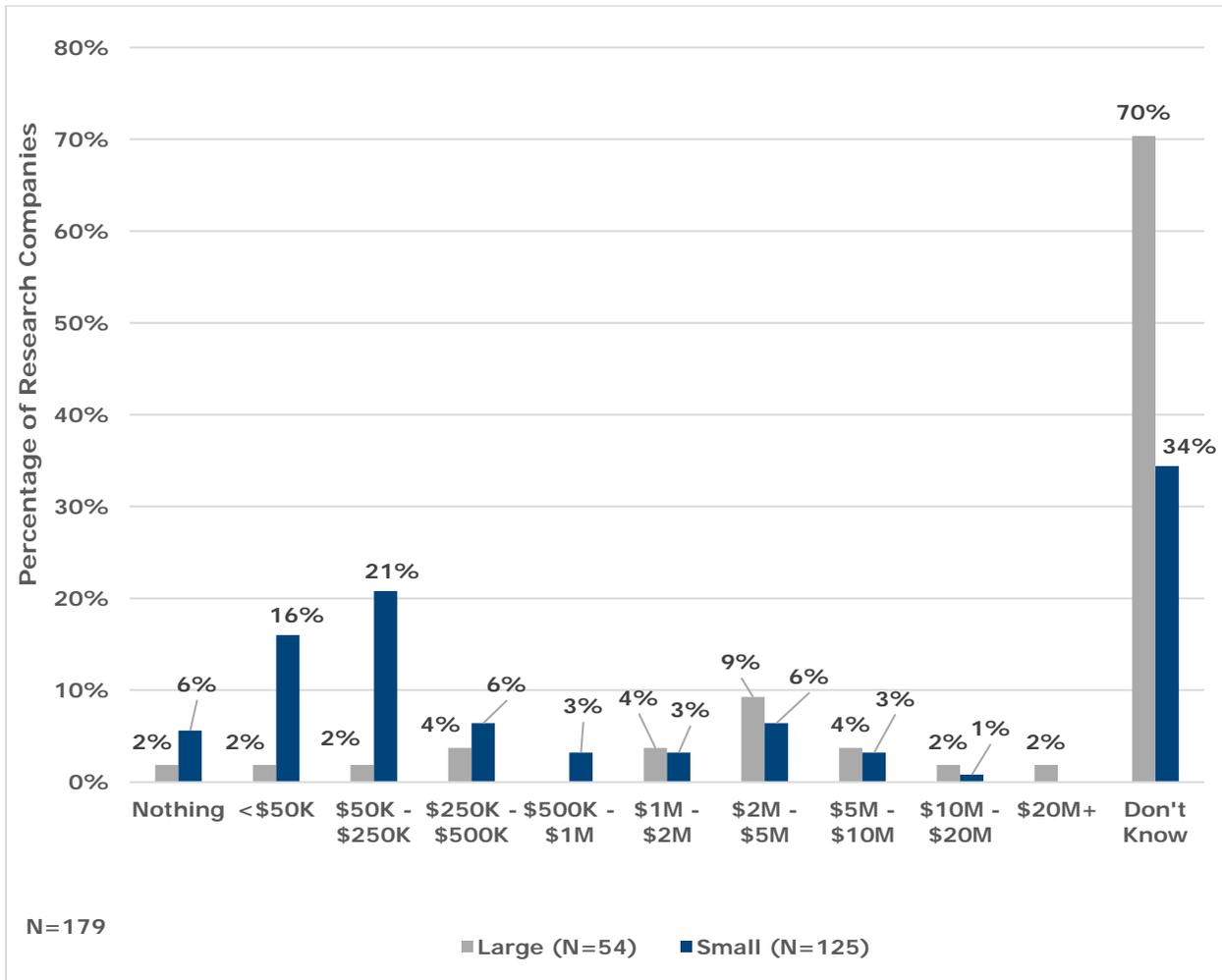


Media, Marketing and Analytics Expenditures

We asked research company respondents how much their firms spent on research and development, both internal and external (see Figure 8). The vast majority of the employees at larger companies (70%) did not know. The same is true of a third of the employees of smaller companies (34%). While this question was relatively clear among advertisers and agencies, it may have been more difficult for research company employees to answer. In some cases, it may be difficult to distinguish between R&D and client research. In large companies which are mostly decentralized, it may be difficult to know what other departments are spending. Beyond this

difference, the distribution of expenditures shows a logical skew by company size. The small companies spent a median of \$158,000 in research-on-research. The median for the larger companies was over ten times more (\$2.6 million), but the base size for large companies was too small to be conclusive.

Figure 8. How Much Did Your Company/Business Unit Spend on Research & Development, Including Internal and External Expenditures in 2018?

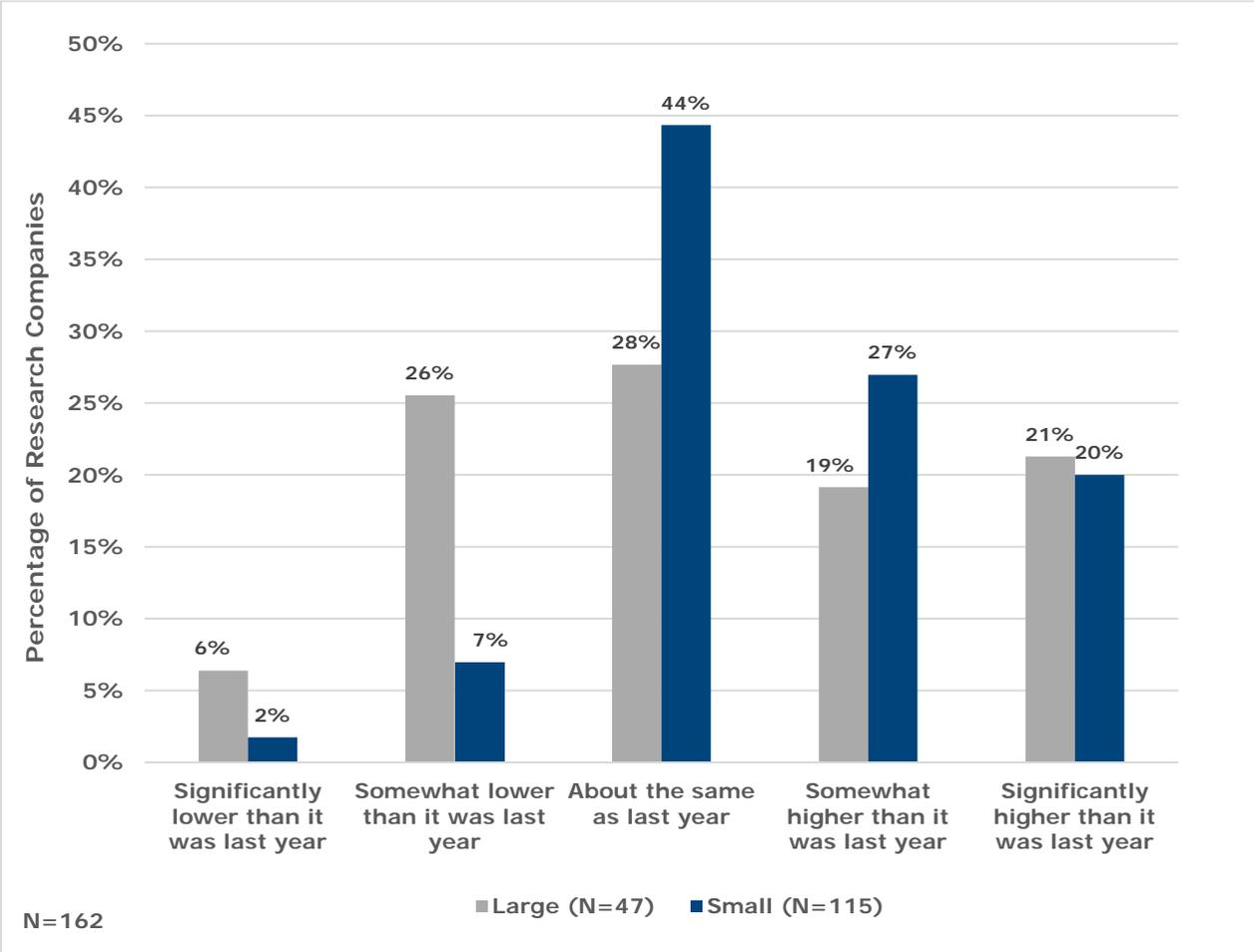


Members have expressed interest in R&D spending as a percent of revenue. It was decided that it was not worthwhile asking this question directly, because too few respondents would know the answer without having to do a lot of internal probing. We have estimated the percent of revenue spent on R & D to be between 2% and 3%, using the medians of the ranges of the questions about R & D spending and total revenue.

Changes in Investment in Research and Analytics

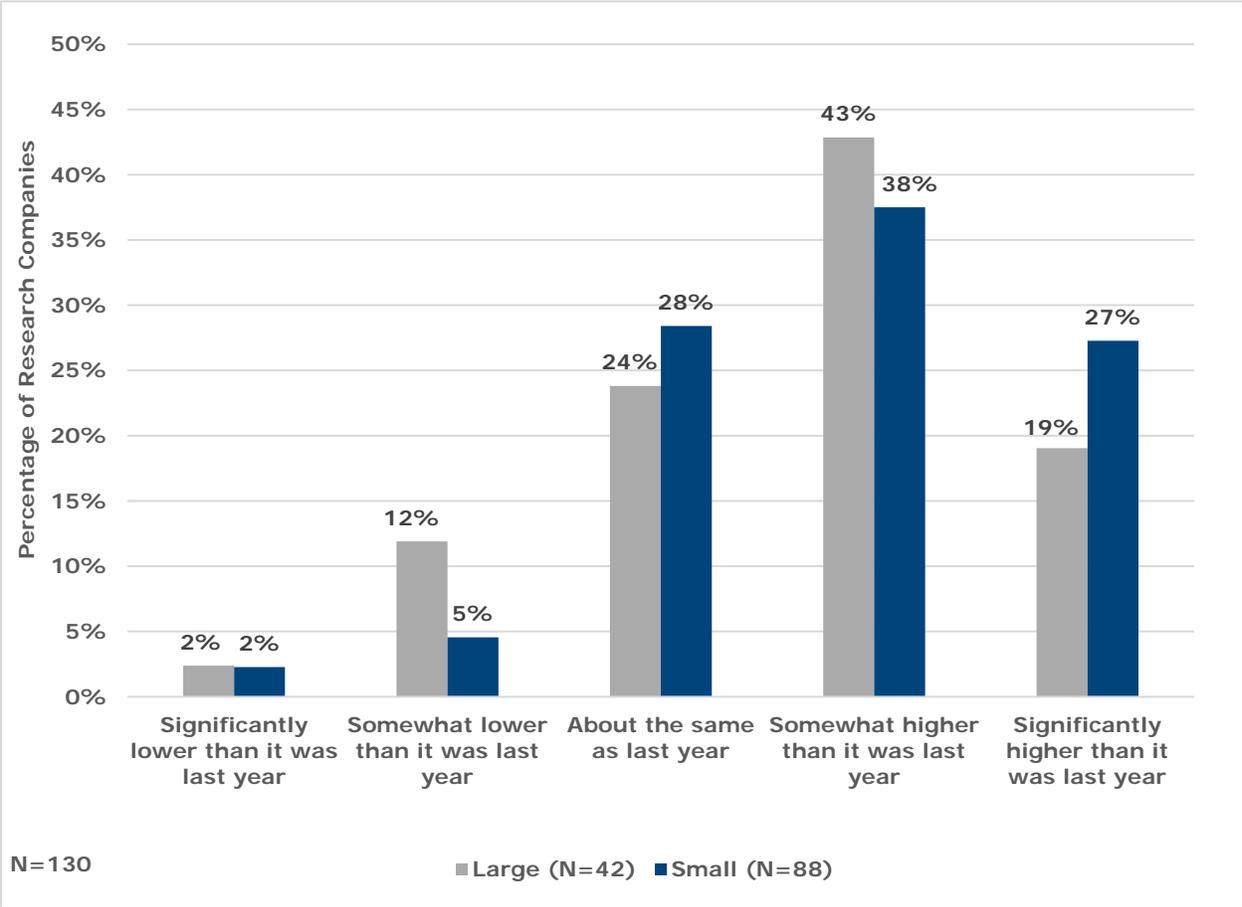
We were also interested in trends in research investments (see Figure 9). This figure compares the change in investment in market research/Insights R & D between 2018 and 2019. There was some evidence that smaller research companies were pursuing market research R & D more aggressively in 2019: While larger research companies were close to being evenly balanced between spending more and spending less, nearly half of the small companies (47%) reported that they were spending more; very few (9%) of them reported that they were spending less.

Figure 9 What Is Your Company/Business Units Total Investment in Market Research/Insights, R&D Technology, Capabilities and Staffing This Year?



On the other hand, with respect to investments in data science R & D, large and small research companies were aligned: Over 60% of the companies in both size categories invested more than they had the previous year in data science R&D, technology, capabilities, and staffing (see Figure 10). On the whole, the research industry appears to be more strongly committed to increasing R & D investments in data science than in market research/insights.

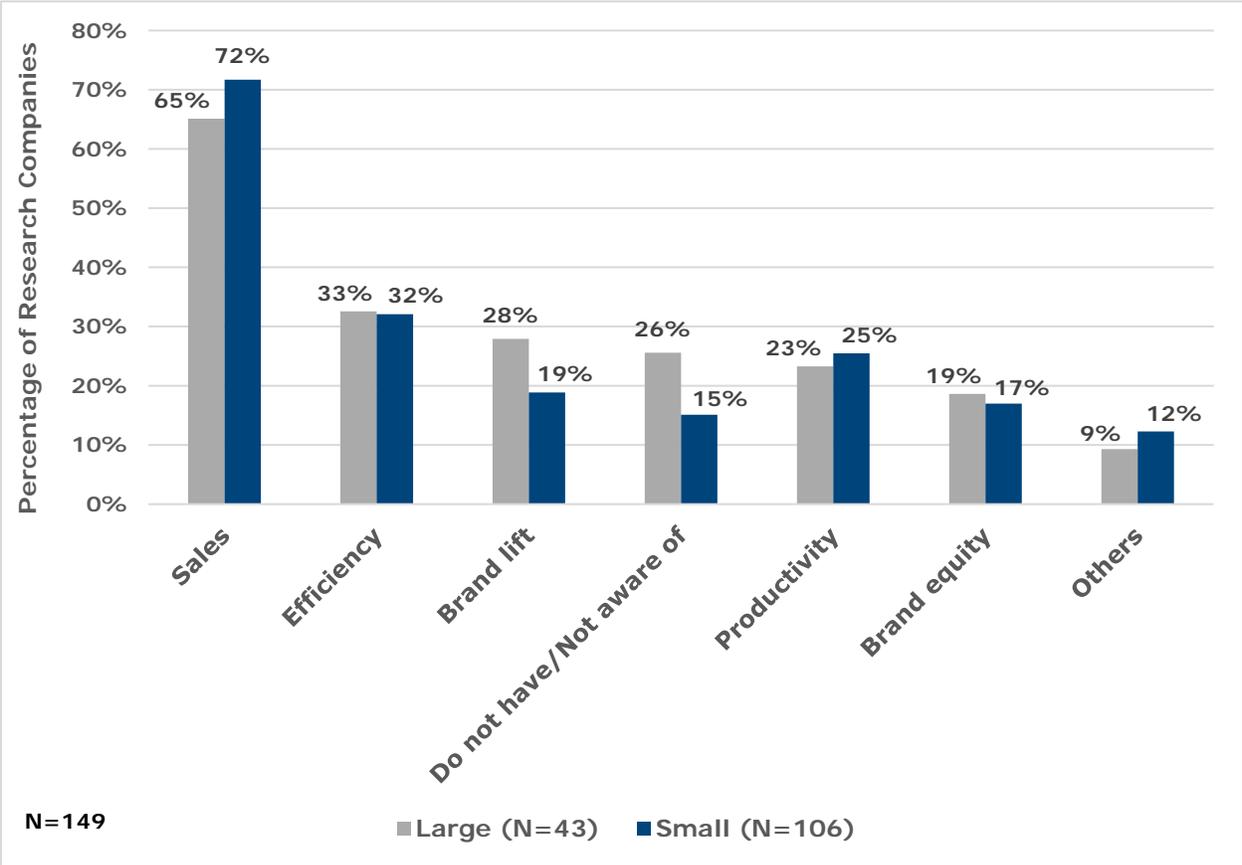
Figure 10. What Is Your Company/Business Units Total Investment in Data Science R&D, Technology, Capabilities and Staffing This Year?



Key Performance Indicators for Return on Investment

For research companies, sales were the predominant KPI for evaluating the return-on-investment (ROI) of their insights and analytics departments. Sales were used as a KPI for about two-thirds of both large and small research companies (see Figure 11). Efficiency, ranking a distant second, was used by a third of both large and small companies. Surprisingly, brand equity was rarely used as a KPI. One-quarter of the respondents from large research companies reported that they were unaware of the KPIs to evaluate their research and analytics departments, or, that they were not aware of any such KPIs.

Figure 11. Which KPIs Does Your Company/Business Unit Use to Evaluate the ROI of Your Insight, Analytics and/or Research Department(s)?



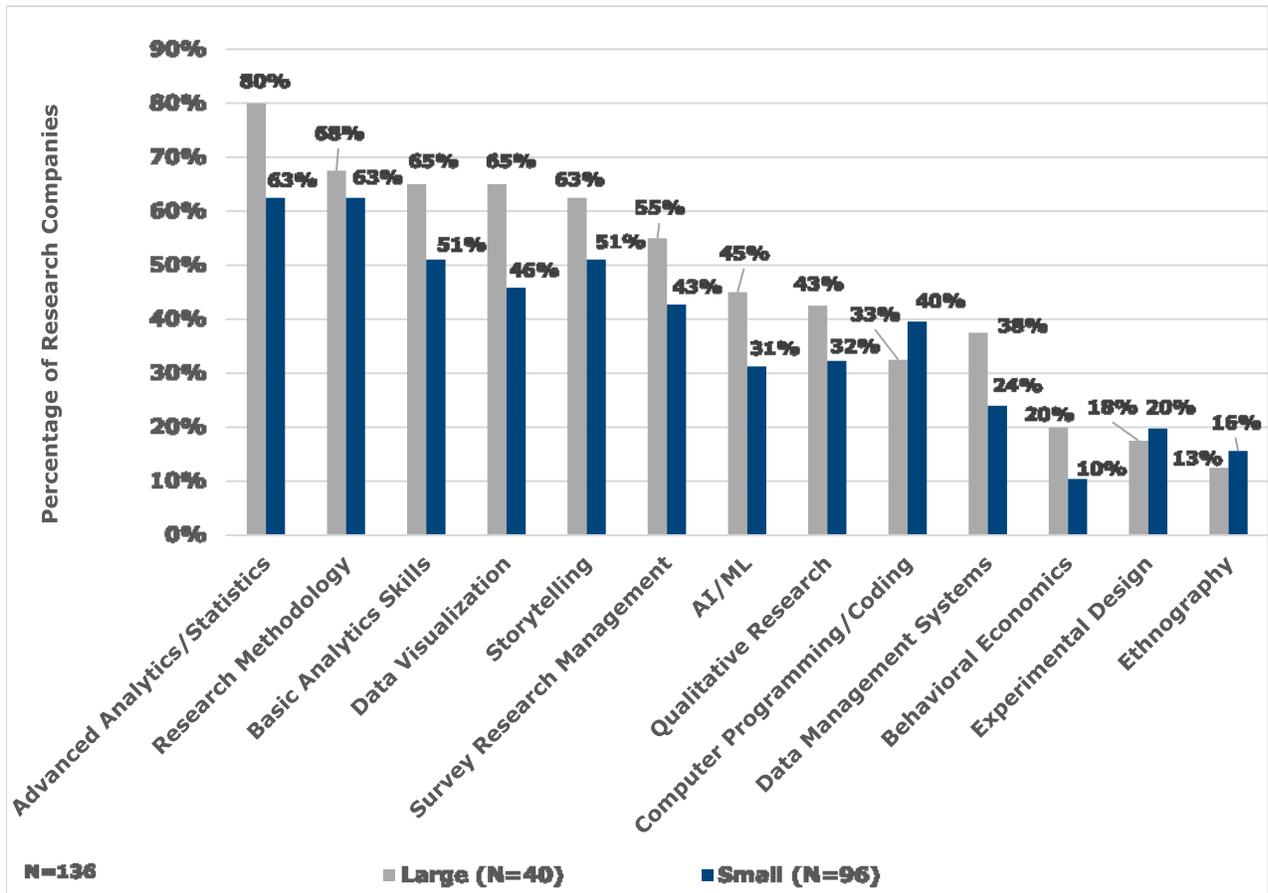
Technical Skills for Current Hiring

Respondents were asked about the preferred skills they have been seeking when hiring (see Figure 12). This figure shows that advanced analytical/statistics was the top choice for large research companies and one of the top two choices for small research companies, as it was for agencies and advertisers. The next-most important skill for research companies – unlike that of agencies and advertisers – was research methodology. Basic analytic skills (e.g. Excel), data visualization skills, and storytelling skills have also been priorities for research companies of both sizes, as they have been for advertisers and agencies.

Survey management skills were of moderate importance to research companies, which is not surprising given the traditional expertise of market research companies in quantitative survey work. For both large and small companies, more specialized technical skills like artificial intelligence, machine learning, and computer programming have been less of a priority. Qualitative skills in general and ethnography, in particular, tended to be even lower priorities.

Large and small research companies' skill-set needs were similar, though large companies have naturally been seeking to fill a larger number of needs than smaller companies

Figure 12. Over the Last Two Years, What Technical Skills Have Been Sought After When Staffing Your Department?

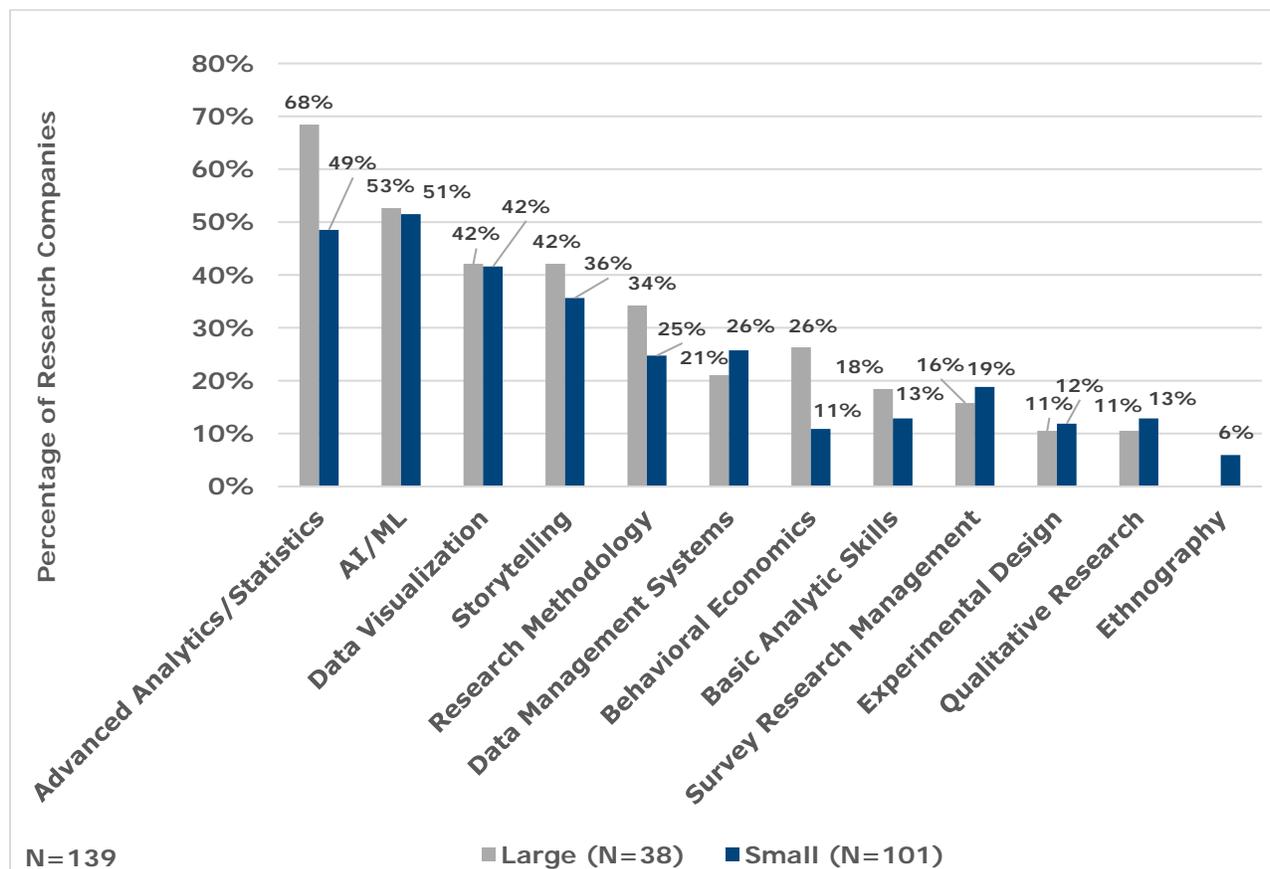


Technical Skills for Future Hiring

There is also similarity in the skills that large and small research companies will be seeking in the near future (see Figure 13). The biggest difference between these segments is the stronger demand for advanced analytics/statistics by large research companies.

The skills research companies seek in future hiring reflect a changing landscape in the practice of marketing and advertising research. Artificial intelligence and machine learning, which have not been a strong focus of research companies in the past, emerged as the second-highest priority for large research companies and the highest priority for smaller ones in the near future. By contrast, basic analytic skills, one of the higher priorities in the recent past, falls back as a priority in the near future. Research company executives also ranked survey research management skills lower for the near future than they have for the past few years.

Figure 13. Which Skills Do You Believe Your Department Will Have the Greatest Need for in the Near Future?

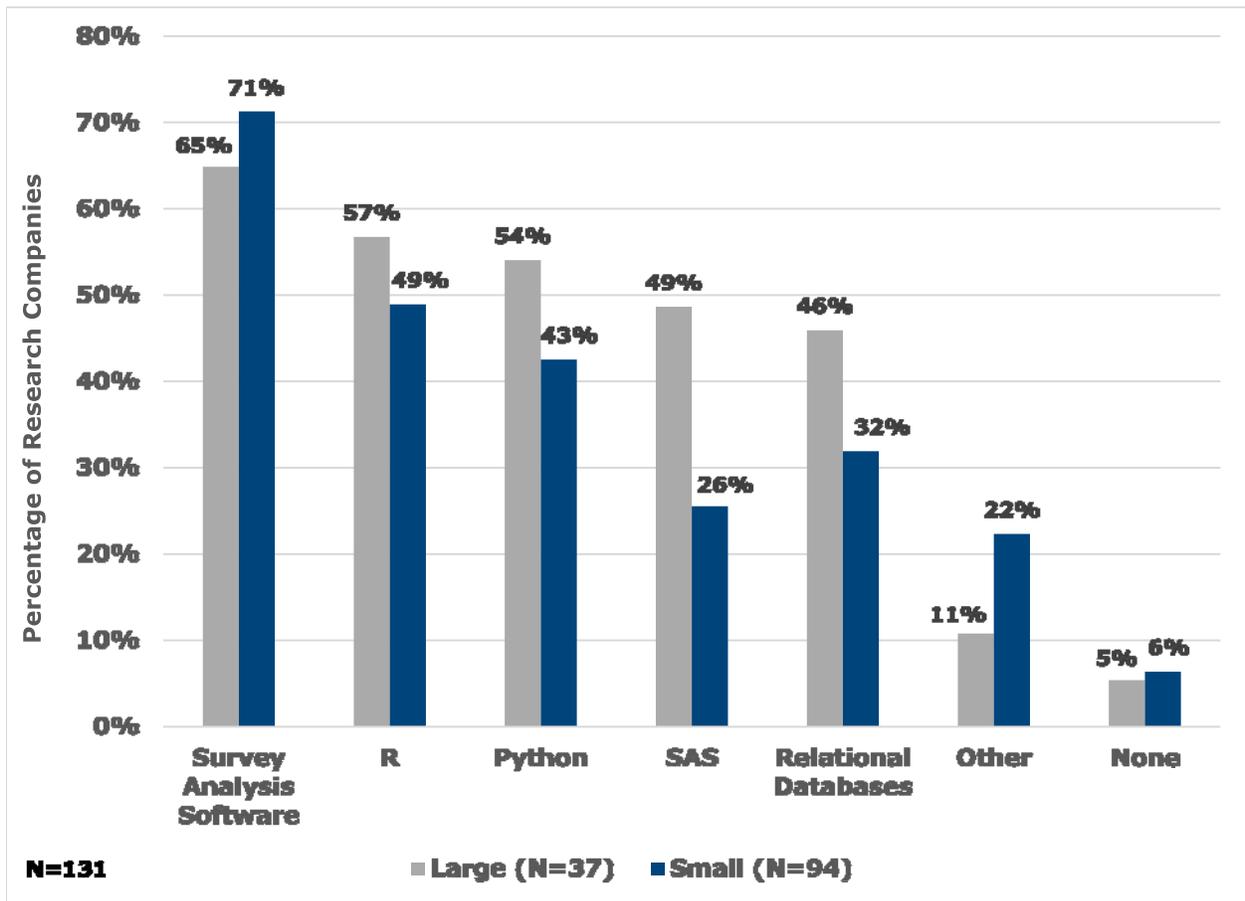


Data visualization and storytelling skills were considered to be among the greatest needs in the near future, as they have been in the past two years. Qualitative Research and Ethnography continue to rank low.

Tools Used to Analyze Data

Many ask what tools our members are using to analyze CRM and other massive datasets (see Figure 14). The most popular tool among both small and large research companies is some type of survey analysis software, which may include platforms such as SPSS and Qualtrics. Other popular language/tools among respondents are R and Python. SAS is more widely used by large research companies than small ones. We were surprised to see the strength of traditional subscription statistical packages, given that the trend in data science has been moving toward open source software such as R and Python.

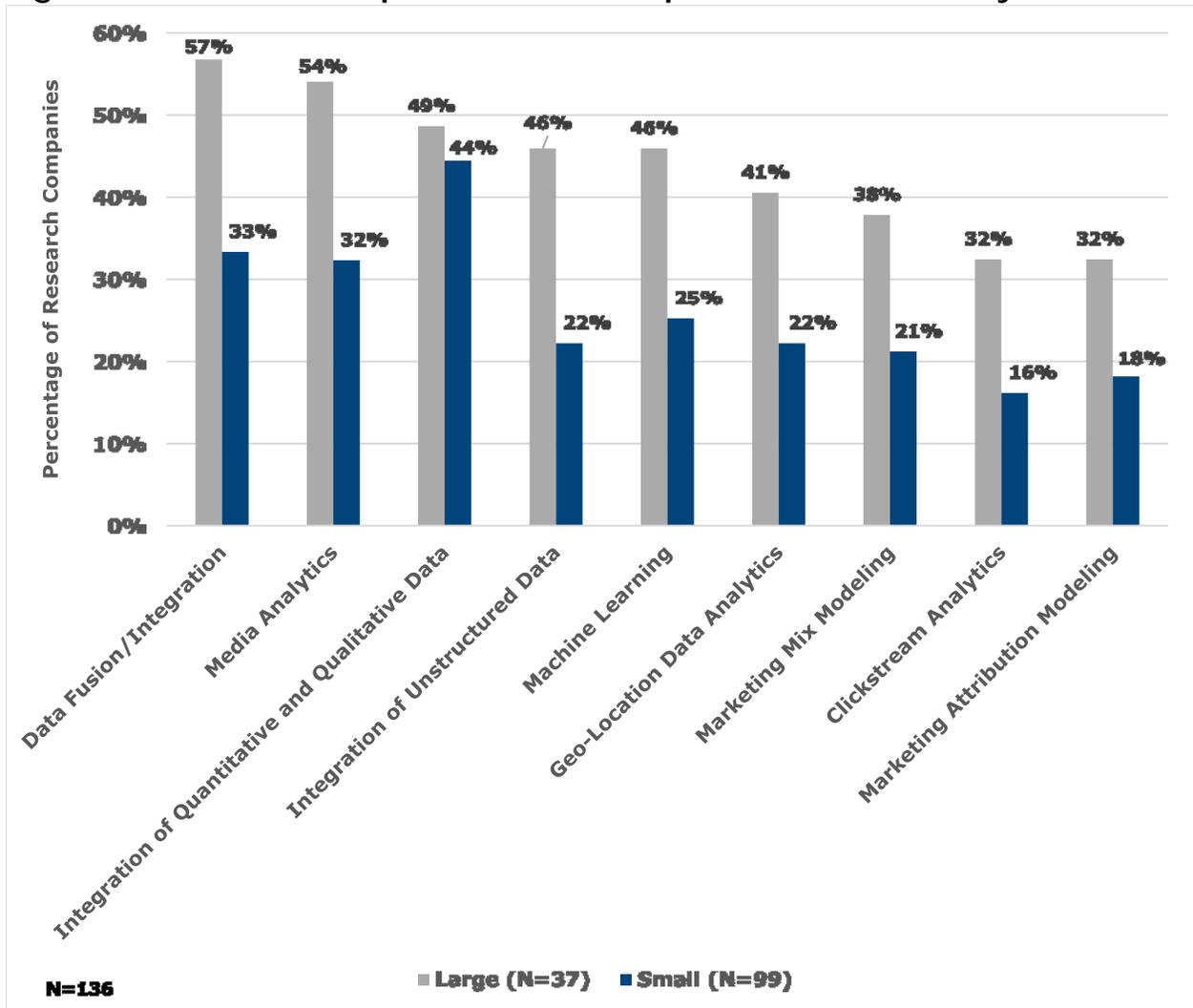
Figure 14. Which Tool Do You Use to Analyze Data?



Techniques Used to Analyze Data

While tools generally refer to software, techniques refer to what that software is used for (see Figure 15). Data integration and media analytics are the top techniques used by large research companies, while integration of quantitative and qualitative data is the top technique used by small research companies. More traditional marketing mix modeling is still more popular than attribution modeling. Research companies have traditionally conducted marketing mix models for years. Attribution is done by research firms, ad tech companies and growingly, by advertisers themselves. As might be expected, all of the techniques are used by a greater share of large companies than small ones.

Figure 15. What Techniques Does Your Department Use to Analyze Data?

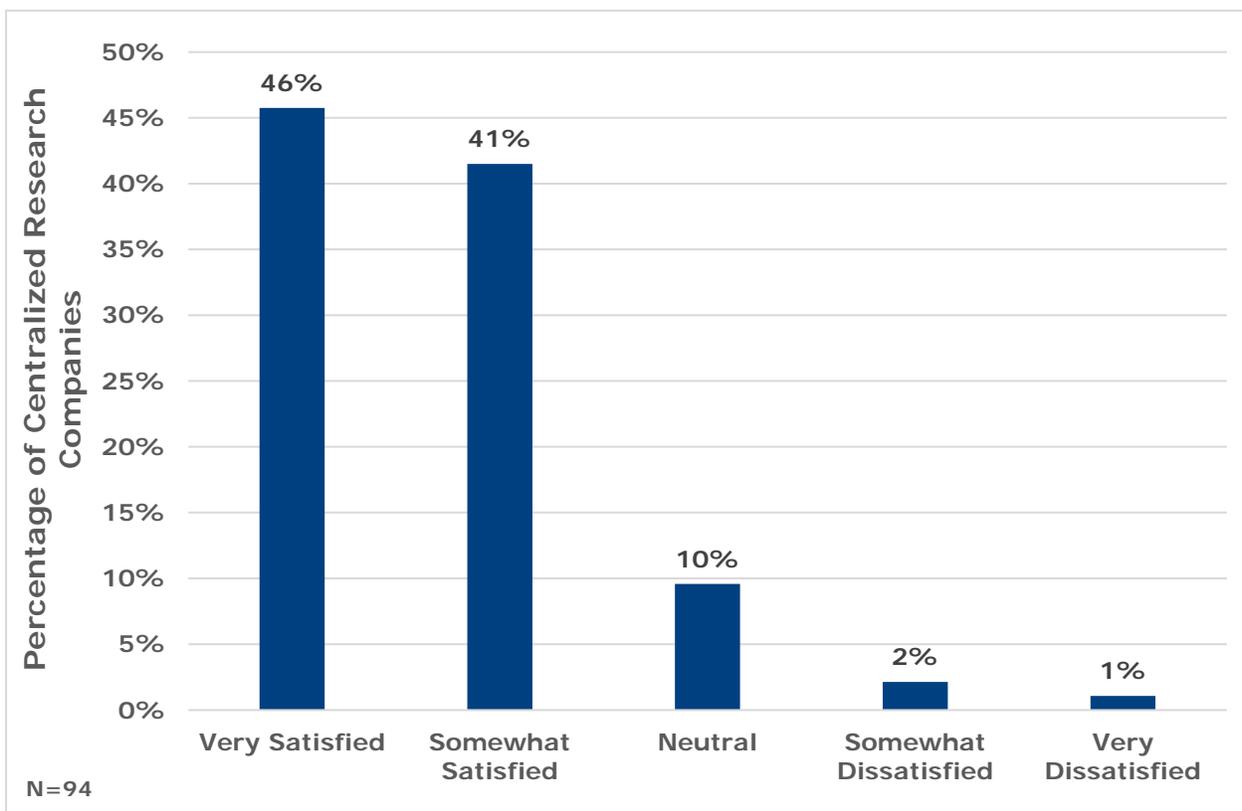


Department Satisfaction

We asked several questions about the respondents' and senior stakeholders' satisfaction, and the value seen in the research and insights function. We asked about satisfaction with the research & analytics department if the respondent indicated that research was centralized under one department. We asked about satisfaction with the data science & analytics departments and the consumer & insights departments separately, if the respondent said the functions were decentralized. This control by centralization had the effect of reducing available sample for each set of analyses. Therefore, small and large research companies were combined in the chart below.

When questioned about their satisfaction with the combined research & analytics department, nearly half (46%) of the research companies responded that they were very satisfied (see Figure 16). Another 41% reported being somewhat satisfied.

Figure 16. How Satisfied Are You with the Research and Analytics Department?



Research companies with decentralized departments were generally satisfied with them, with three-quarters or more of both large and small research companies reporting that they were at least somewhat satisfied with each department (see Figure 17 and Figure 18). However, research company respondents were more likely to report being “very satisfied” with centralized research and analytics departments than with individual research departments and data science departments in decentralized companies. The similar results were obtained when we looked at the advertiser and agency responses.

Figure 17. How Satisfied Are You with the Data Science and Analytics Department?

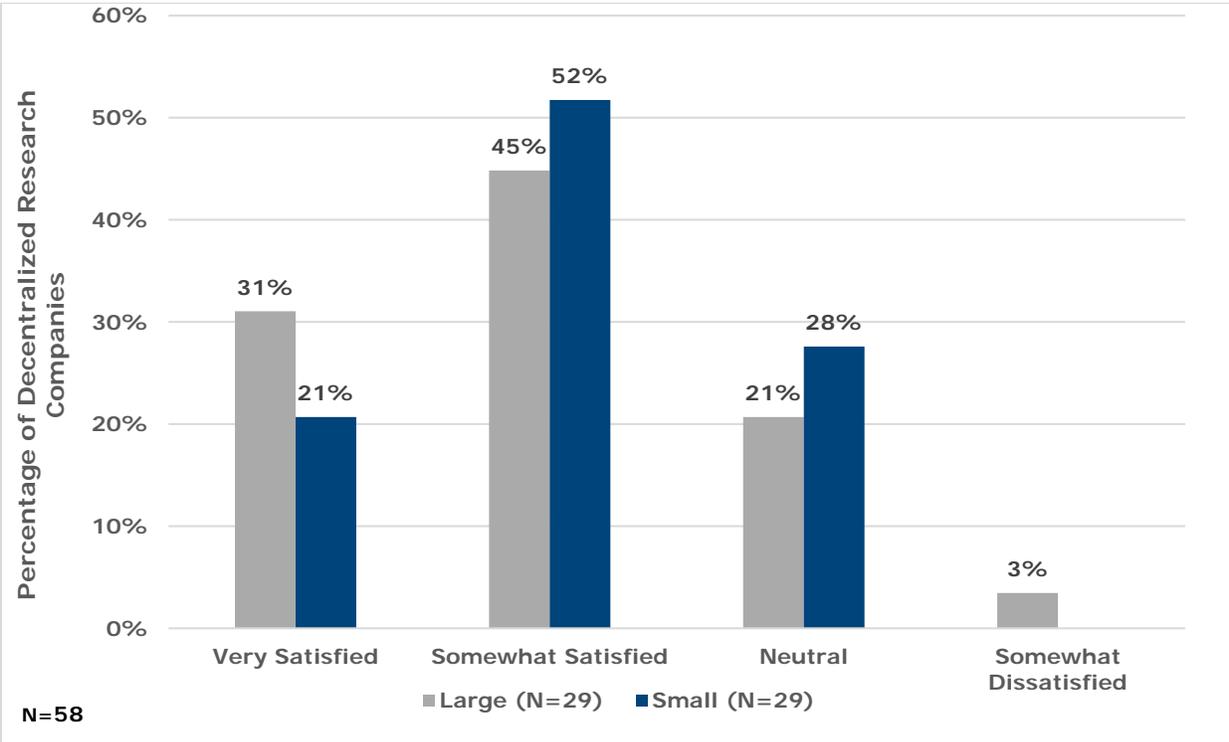
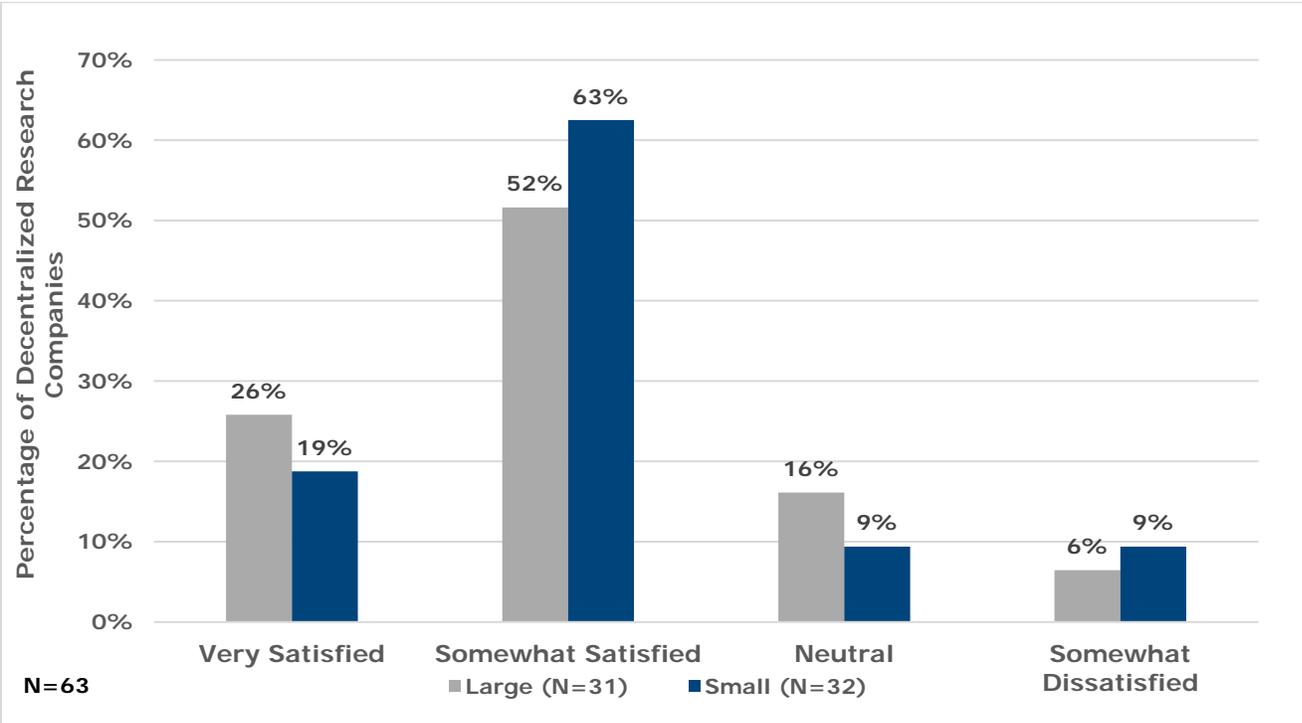


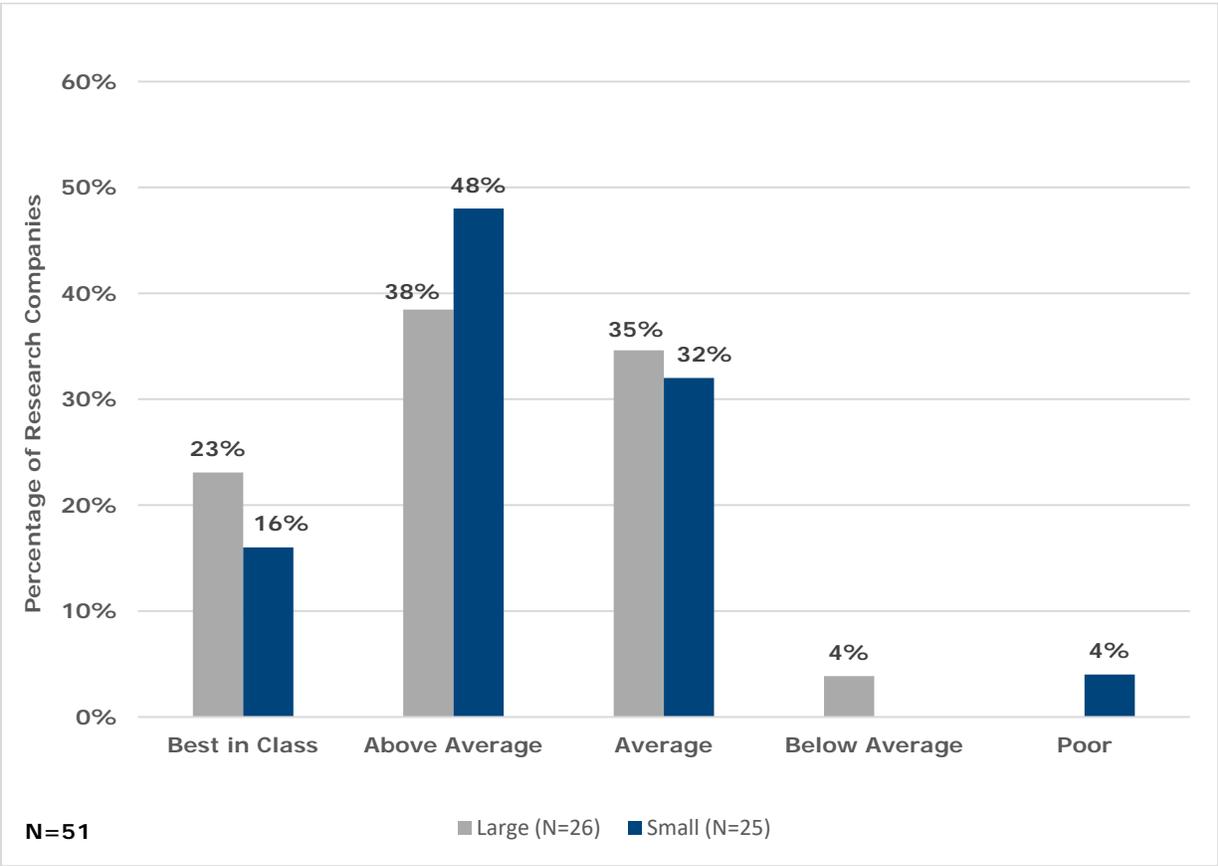
Figure 18. How Satisfied Are You with the Consumer Research and Insights Department?



Department Strength

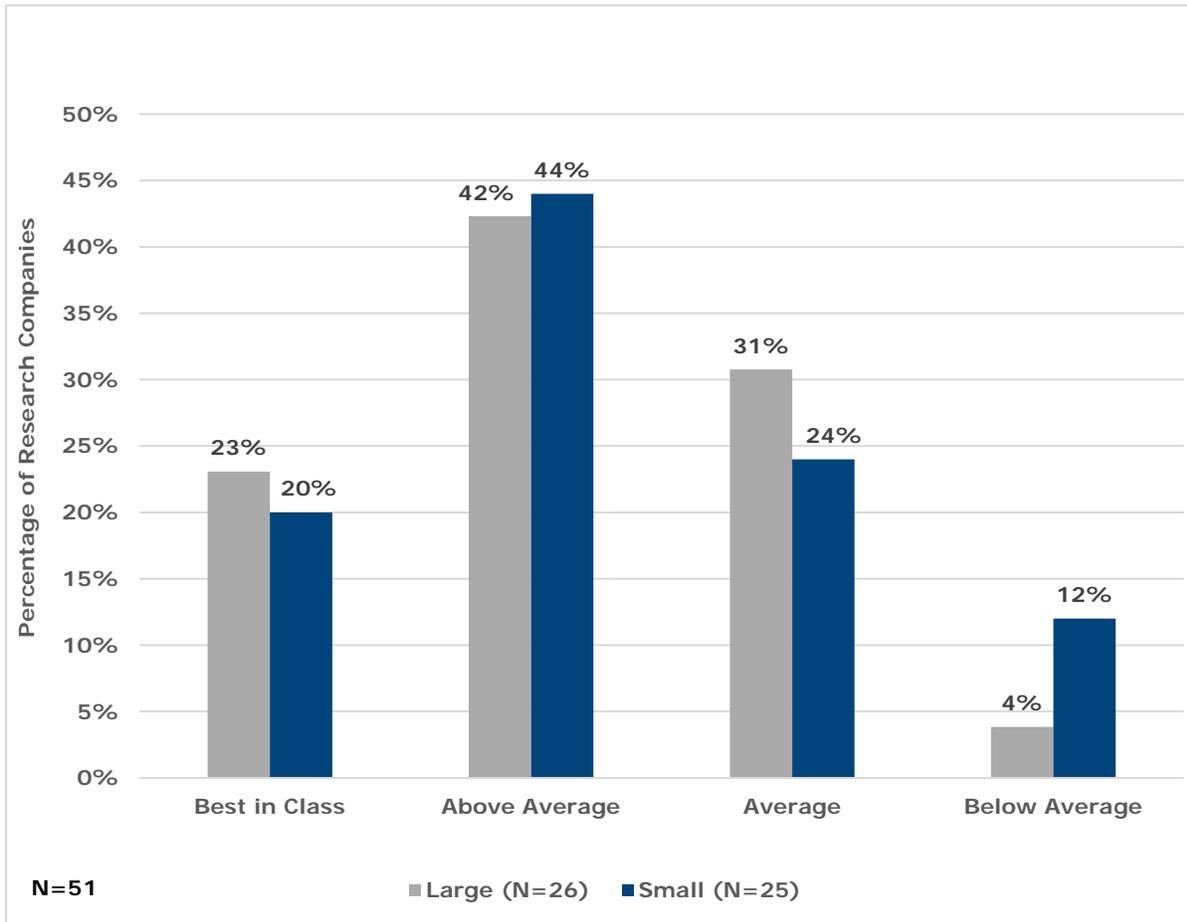
Most research company respondents with data science departments (at least 60%) regarded their company's ability to translate consumer data into consumer insights as either "above average" or "best in class." Very few considered their company to be "below average" or "poor" in this respect. Employees of large and small research companies tended to have similar opinions about their company's ability to translate data into insights.

Figure 19. How Strongly Does Your Company Translate Consumer Data into Consumer Insights?



Research executives at companies with data science departments gave similar marks to their company's ability to integrate and interpret data across multiple sources (see Figure 20). About two-thirds of executives at both larger and small research companies considered their company to be "best in class" or "above average" in this capability. Again, respondents large and small research companies held similar views on this question.

Figure 20. How Strongly Does Your Company Integrate and Interpret Consumer Data Across Multiple Sources?

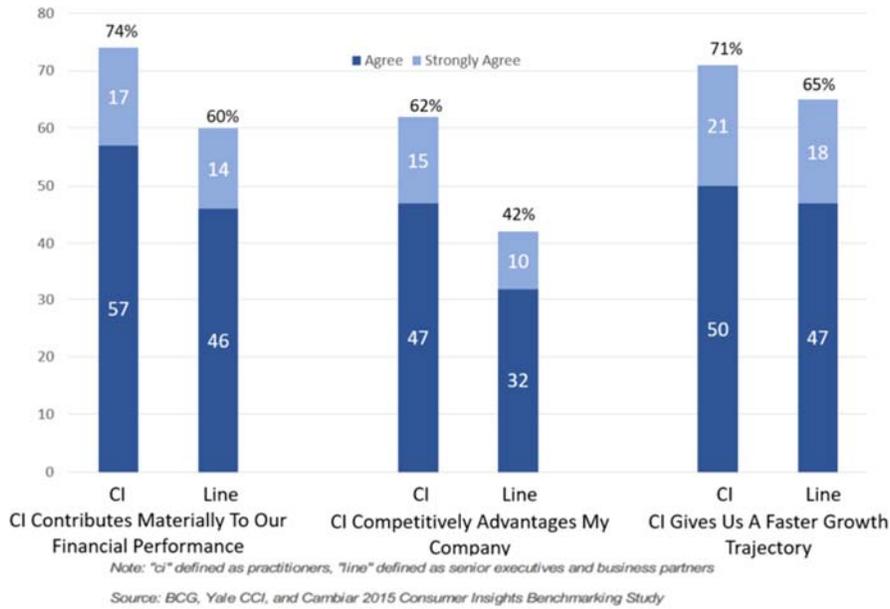


Stakeholder Value

We also replicated stakeholder value questions first asked in a Boston Consulting Group (BCG) survey in 2009 and then repeated in 2015 (see Figure 21). This 2015 online survey was conducted among 600 insights practitioners and senior executives and business partners in consumer-facing companies, *i.e.* advertisers. The figure reported in the 2016 BCG paper shows that generally, line executives and partners tend to hold a lower value to consumer insights than do those who work in the insights departments themselves.

We asked four of the same questions (see Table 1) in this Benchmark Survey. Each of these questions tap a different dimension of stakeholder value, and so they tend to be highly correlated. It is not surprising that stakeholder value is highest among research and measurement companies.

Figure 21. Stakeholder Value of Consumer Insights



It is also not surprising that media stakeholders would score the value of research and analytics in contributing to ROI and in making business decisions as relatively high, given the importance of content and sales research. The agency results, where research provides a competitive advantage and is relied on for business decisions, may reflect the use of research in new business pitches and media and brand planning.

Table 1 Believe that Key Stakeholders in Business Unit Agree (by LOB)

	Advertiser n~56	Agency n~52	Media n~61	Research n~136	Others n~45	Total n~338
Research & Analytics Department Contribute Materially to Financial Performance	56%	65%	77%	87%	86%	77%
Relying on Research & Analytics Department to Make Business Decision	62%	72%	79%	71%	71%	71%
Research & Analytics Provides High ROI	61%	69%	64%	81%	83%	73%
Research & Analytics Gives a Competitive Advantage	64%	83%	82%	88%	95%	83%

Note: LOB = Line of Business

More striking were the relatively lower scores across all dimensions for advertisers. Although the estimates are in line with the advertiser responses to the 2015 BCG study, they stand apart from the rest of the ecosystem sectors.

There is also a significant difference between employees of large and small research companies in their perceptions of the contribution of research and analytics to financial performance and providing high ROI (see Table 2). Small research company employees are stronger believers in the contribution of their research and analytics departments to their company’s financial performance and providing high ROI. Perhaps small research companies express greater confidence in their research and analytics departments because they are presumably less diversified and therefore more dependent on those departments.

Table 2. Believe that Key Stakeholders in Business Unit Agree (by Research Company Size)

	Small n~100	Large n~34
Research & Analytics Department Contribute Materially to Financial Performance	92%	71%
Relying on Research & Analytics Department to Make Business Decision	73%	70%
Research & Analytics Provides High ROI	84%	69%
Research & Analytics Gives a Competitive Advantage	88%	88%

Strength of Performance

Research company executives were asked how they viewed their company’s performance with respect to various capabilities. Research companies tended to rate highly their ability to integrate data and interpret it across several data sources (see Figure 22) and their ability to translate consumer research into business recommendations favorably (see Figure 23). Over three-quarters of respondents in both small and large research companies rated themselves “above average” or “best in class” on both metrics.

Figure 22. Strength in Integrating, Synthesizing, and/or Interpreting Consumer Insights Across Multiple Data Sources

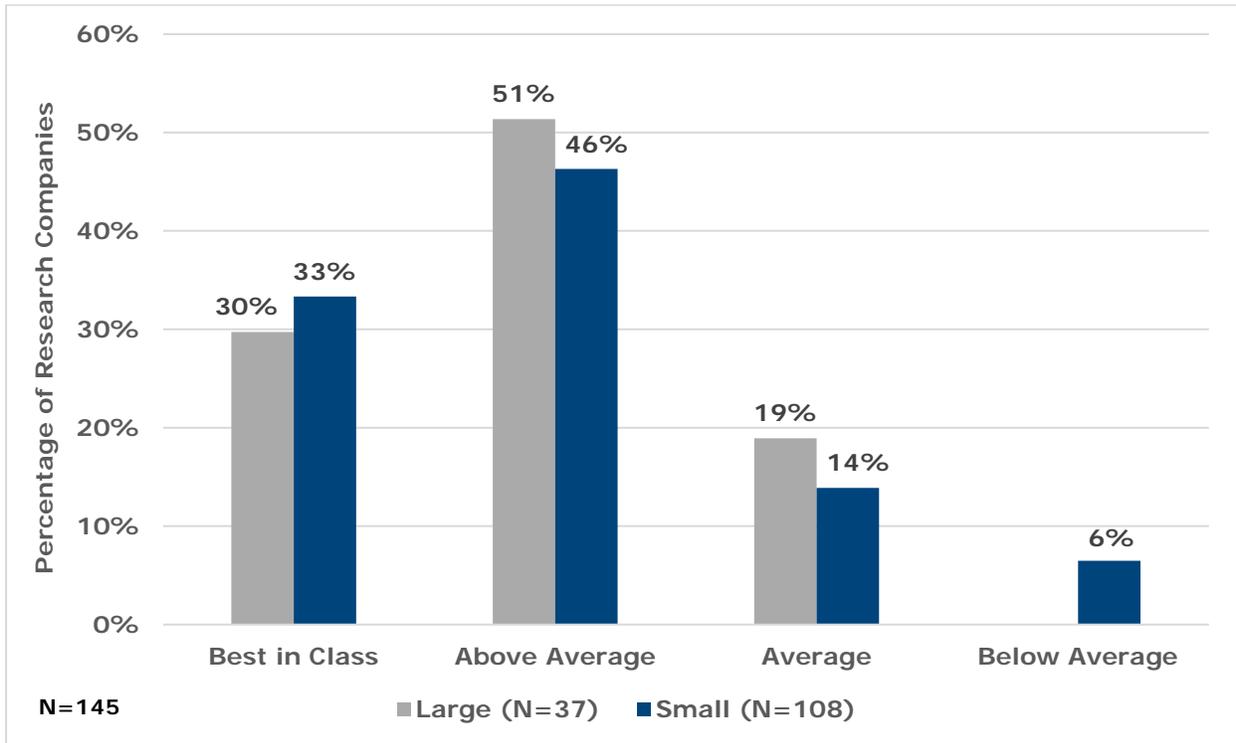
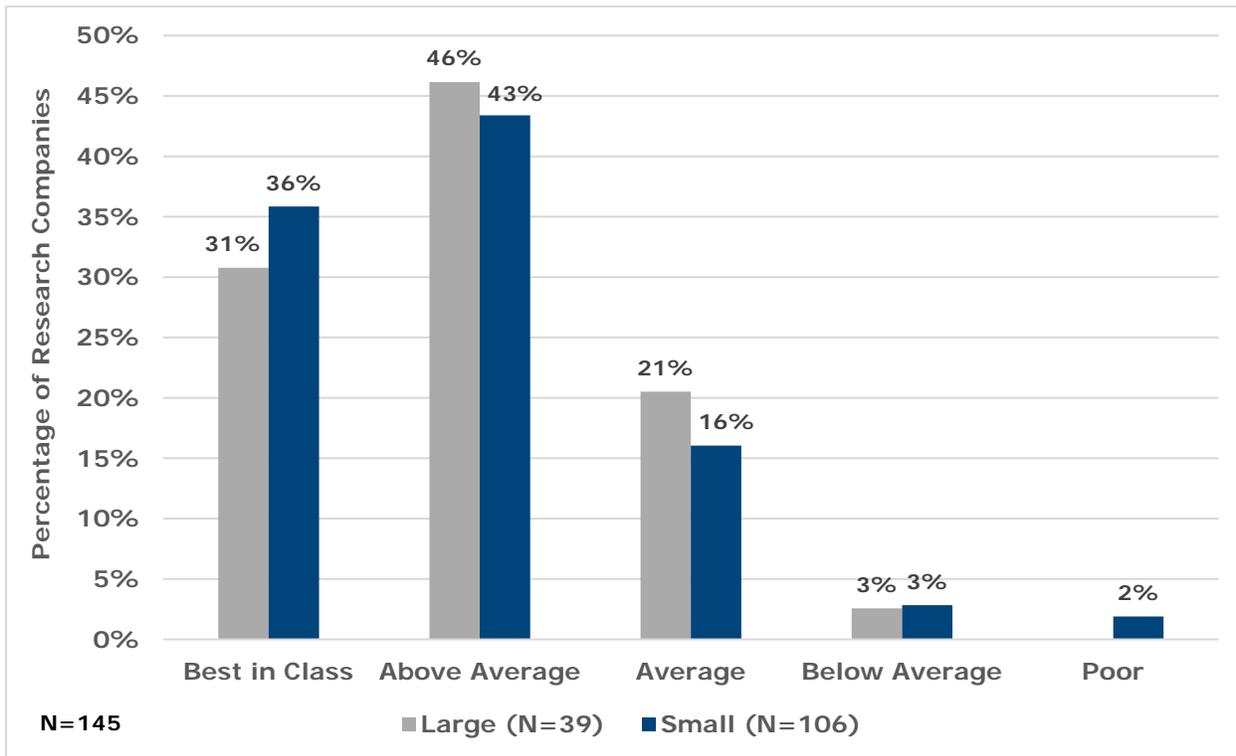
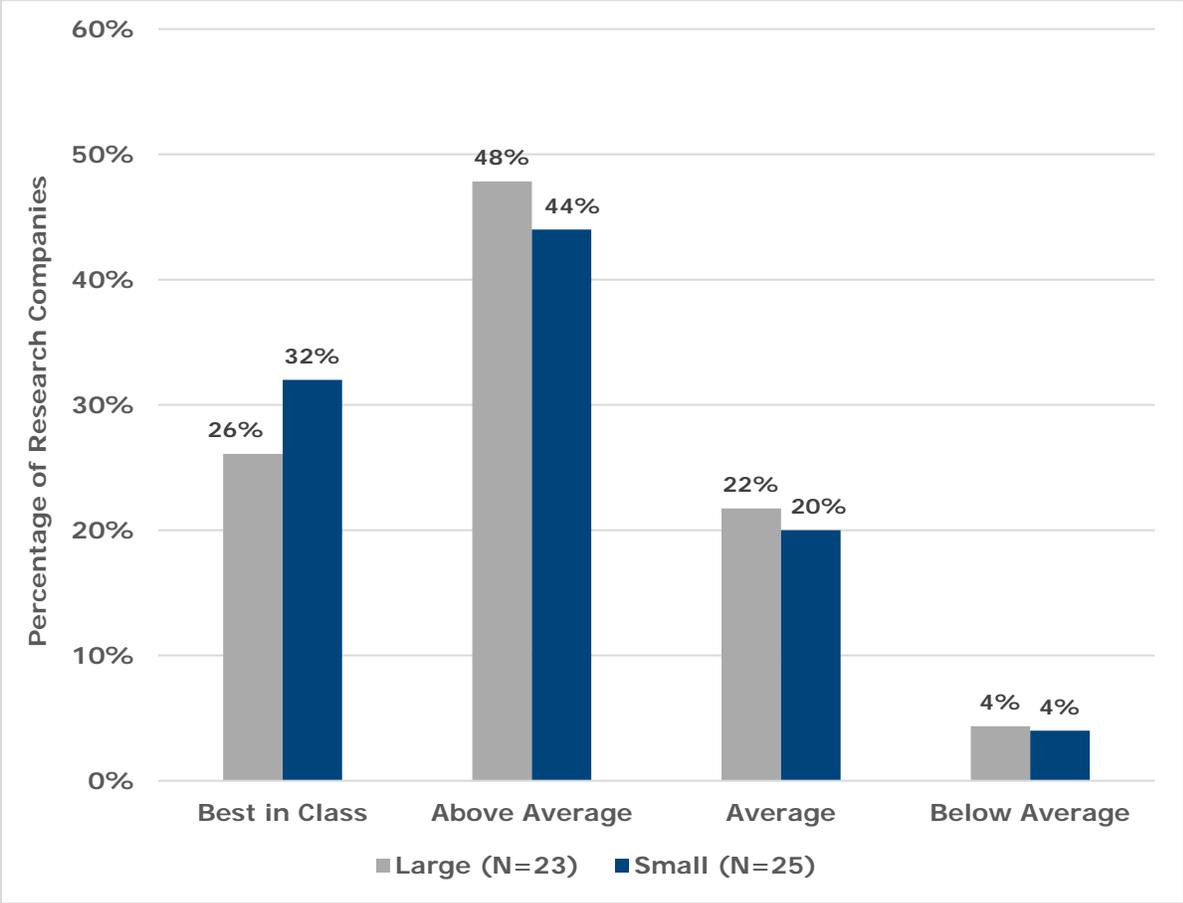


Figure 23. Strength in Translating Consumer Research/Insights into Business Recommendations/Actions



Although the samples are small, research companies with data science departments also rated those departments favorably; about three-quarters of the employees of small and large research companies considered their companies' data science capabilities "above average" or "best-in-class" (see Figure 24).

Figure 24. Strength in Data Science/Analytics Capabilities



Summary of Findings

Not surprisingly, **structure** is largely dependent on size. Larger research companies are more likely to have a decentralized structure. Smaller ones are more likely to have a centralized or mostly centralized insights function.

Both large and small research companies are **investing** more in data science than they did the year before. Small research companies are investing more in market research capabilities and technology.

Sales is the predominant **KPI** used by research companies. Advanced analytics is the broad **skill category** most in need for research companies of both sizes. Research methodology and basic analytics skills have been highly sought in the recent past, but AI and ML will be the second-most sought skill in the near future

among both large and small research companies. This is consistent with research companies' stronger focus on investments in data science than in insights. Subscription software packages such as SPSS and Qualtrics remain the most popular tools in research companies, but R and Python have seen substantial growth in use.

Research company executives give their research and analytics **capabilities** high marks for integrating data from multiple sources and turning those data in recommendations.

Custom Benchmark Survey

In many companies, no more than one or two executives may have responded to the survey. This makes it difficult to compare an individual company against the benchmarks. As we have seen, there can be significant differences between the views of those in the insights organization and other stakeholders. The Advertising Research Foundation does offer a custom benchmark report for a fee. We recommend delivering the survey to at least 30 respondents within any business unit to be reported. Respondents would be preselected to represent different areas of line and stakeholder responsibility.

Results would be reported in contrast to research/measurement companies in general and large and small research/measurement companies. The cost is a function of the number of business units to be studied. If interested or have further questions, please email Chief Research Officer Paul Donato at Pdonato@thearf.org or Director of the ARF Council Program, Jay Mattlin at jmattlin@thearf.org.