

Survey Data Visualization

```
library(ggthemes)
library(knitr)
library(RColorBrewer)
library(tidyverse)

## -- Attaching packages ----- tidyverse 1.3.0 --

## v ggplot2 3.2.1      v purrr 0.3.3
## v tibble 2.1.3       v dplyr 0.8.3
## v tidyr 1.0.0        v stringr 1.4.0
## v readr 1.3.1        v forcats 0.4.0

## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()      masks stats::lag()

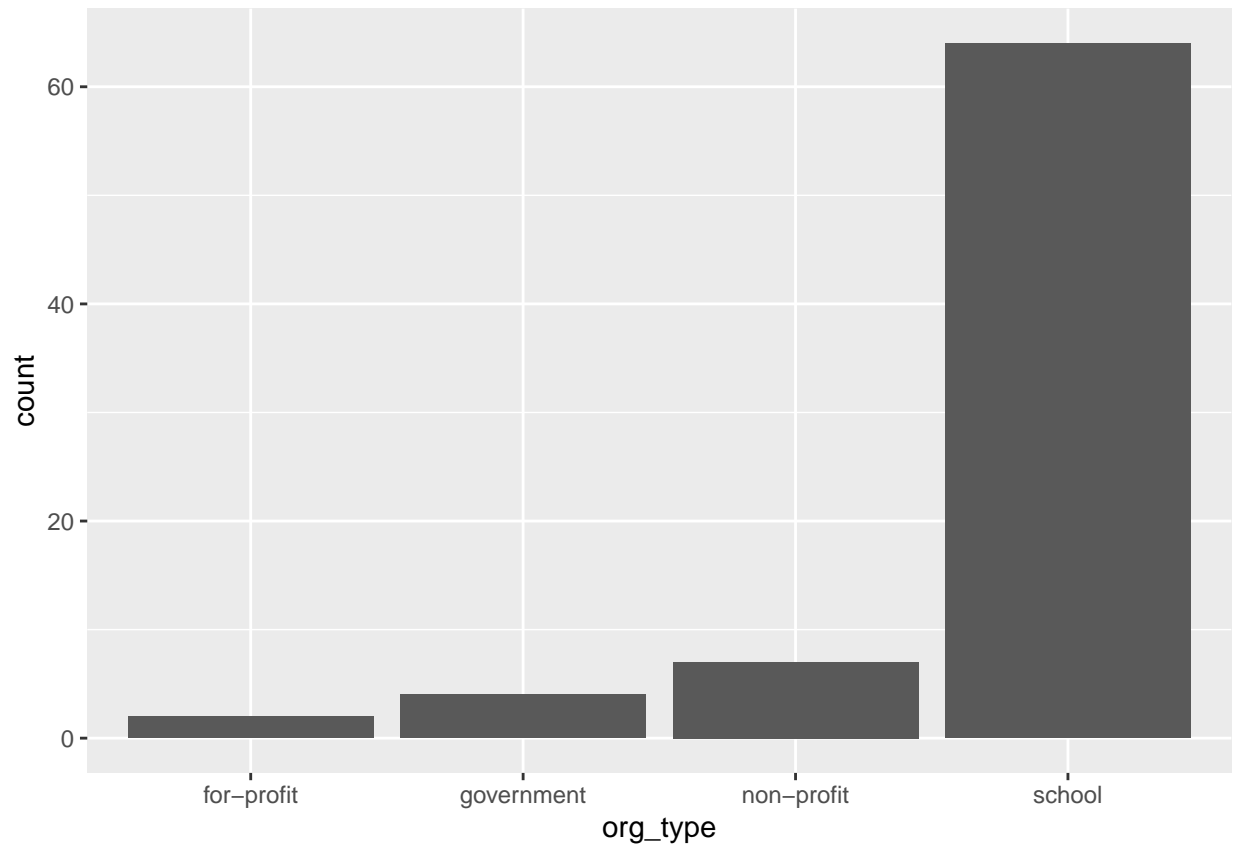
survey <- read_rds('data/survey_data.rds')
head(survey)

## # A tibble: 6 x 258
##   id      consent org_type org_type_text irb_ethics_prim~ irb_ethics_prim~
##   <chr> <chr>    <fct>    <chr>          <fct>          <chr>
## 1 R_un~ I cons~ school    <NA>          academic resear~ <NA>
## 2 R_10~ I cons~ school    <NA>          academic resear~ <NA>
## 3 R_31~ I cons~ school    <NA>          academic resear~ <NA>
## 4 R_3f~ I cons~ school    <NA>          academic resear~ <NA>
## 5 R_1i~ I cons~ school    <NA>          academic resear~ <NA>
## 6 R_T0~ I cons~ non-pro~ <NA>          non-profit rese~ <NA>
## # ... with 252 more variables: academic_institution_type <fct>,
## #   role_ethical_review <lgl>, role_conduct_research <lgl>,
## #   role_administration <lgl>, role_irb_professional_staff <lgl>,
## #   role_irb_member <lgl>, role_researcher <lgl>, role_pi <lgl>,
## #   role_lab_manager <lgl>, role_grad_student <lgl>, role_postdoc <lgl>,
## #   role_provost <lgl>, role_dean_of_research <lgl>,
## #   role_university_institutional_official <lgl>, academic_research_type <fct>,
## #   annual_pervasive_protocols <fct>,
## #   percent_pervasive_not_human_subject <dbl>, percent_pervasive_exempt <dbl>,
## #   percent_pervasive_expedited <dbl>, percent_pervasive_full_board <dbl>,
## #   percent_pervasive_not_sure <dbl>, reviewed_social_media_posts <lgl>,
## #   reviewed_social_media_images <lgl>, reviewed_social_media_profiles <lgl>,
## #   reviewed_network_traffic <lgl>, reviewed_locational_data <lgl>,
## #   reviewed_sensor_data <lgl>, reviewed_other <lgl>,
## #   reviewed_other_text <chr>, most_pervasive_data_in_social_sciences <lgl>,
## #   most_pervasive_data_in_computer_science_engineering <lgl>,
## #   most_pervasive_data_in_natural_sciences <lgl>,
## #   most_pervasive_data_in_arts_humanities <lgl>,
## #   most_pervasive_data_in_medical_health <lgl>,
## #   most_pervasive_data_in_other <lgl>,
```

```
## # most_pervasive_data_in_other_text <chr>,
## # confidence_researchers_pervasive_data_ethical <fct>,
## # confidence_irb_members_pervasive_data_technical <fct>,
## # confidence_irb_members_pervasive_data_ethical <fct>,
## # irb_has_policy_for_pervasive_data <fct>,
## # irb_policy_for_pervasive_data_usefulness <fct>,
## # irb_guidelines_common_rule <lgl>, irb_guidelines_belmont_report <lgl>,
## # irb_guidelines_menlo_report <lgl>, irb_guidelines_sachrp <lgl>,
## # irb_guidelines_acm_sigchi <lgl>, irb_guidelines_aoir <lgl>,
## # irb_guidelines_apa <lgl>, irb_guidelines_other <lgl>,
## # irb_guidelines_none <lgl>, irb_guidelines_other_text <chr>,
## # institution_trains_researchers_pervasive_data_ethics <fct>,
## # institution_trains_irb_members_pervasive_data_ethics <fct>,
## # irb_implemented_changes_to_common_rule <fct>,
## # c1_irb_would_consider_proposal <fct>, c1_key_factor_site <lgl>,
## # c1_key_factor_factor_data <lgl>, c1_key_factor_level_analysis <lgl>,
## # c1_key_factor_pid <lgl>, c1_key_factor_tos <lgl>,
## # c1_key_factor_data_reuse <lgl>, c1_key_factor_combine_dataset <lgl>,
## # c1_key_factor_method_obtain_data <lgl>, c1_key_factor_type_of_data <lgl>,
## # c1_key_factor_informed_consent <lgl>, c1_key_factor_research_purpose <lgl>,
## # c1_key_factor_research_impact <lgl>, c1_key_factor_other <lgl>,
## # c1_key_factor_other_text <chr>, c1_personally_consider_proposal <fct>,
## # c1_ethical_concerns_outside_irb_purview <fct>,
## # c1_ethical_concerns_outside_irb_purview_text <fct>,
## # c2_irb_would_consider_proposal <fct>, c2_key_factor_site <lgl>,
## # c2_key_factor_factor_data <lgl>, c2_key_factor_level_analysis <lgl>,
## # c2_key_factor_pid <lgl>, c2_key_factor_tos <lgl>,
## # c2_key_factor_data_reuse <lgl>, c2_key_factor_combine_dataset <lgl>,
## # c2_key_factor_method_obtain_data <lgl>, c2_key_factor_type_of_data <lgl>,
## # c2_key_factor_informed_consent <lgl>, c2_key_factor_research_purpose <lgl>,
## # c2_key_factor_research_impact <lgl>, c2_key_factor_other <lgl>,
## # c2_key_factor_other_text <chr>, c2_personally_consider_proposal <fct>,
## # c2_ethical_concerns_outside_irb_purview <fct>,
## # c2_ethical_concerns_outside_irb_purview_text <fct>,
## # c3_irb_would_consider_proposal <fct>, c3_key_factor_site <lgl>,
## # c3_key_factor_factor_data <lgl>, c3_key_factor_level_analysis <lgl>,
## # c3_key_factor_pid <lgl>, c3_key_factor_tos <lgl>,
## # c3_key_factor_data_reuse <lgl>, c3_key_factor_combine_dataset <lgl>,
## # c3_key_factor_method_obtain_data <lgl>, c3_key_factor_type_of_data <lgl>,
## # ...
```

Organization type

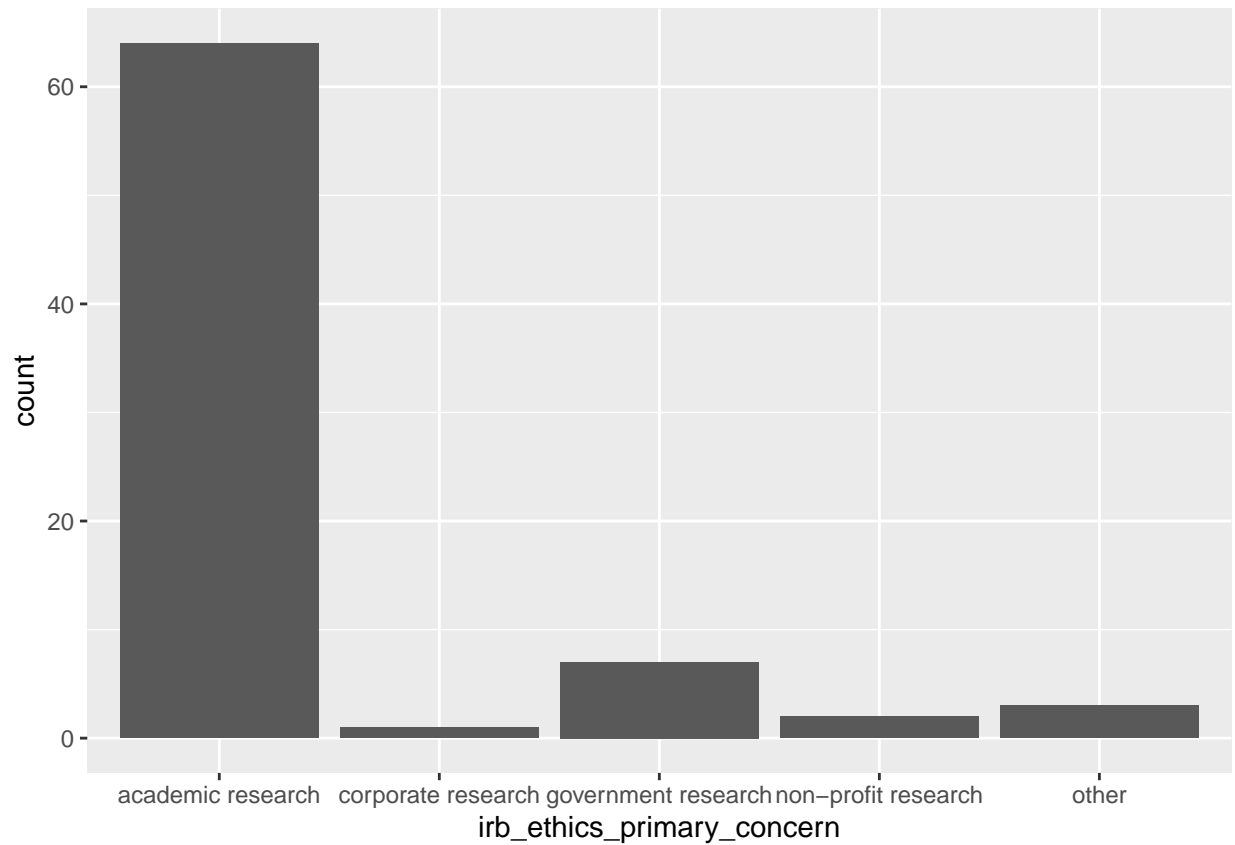
```
ggplot(survey, aes(x = org_type)) +
  geom_bar(stat = "count")
```



```
survey %>%  
  select(org_type_text) %>%  
  filter(!is.na(.)) %>%  
  kable()
```

org_type_text

```
ggplot(survey, aes(x = irb_ethics_primary_concern)) +  
  geom_bar(stat = "count")
```



```
survey %>%
  select(irb_ethics_primary_concern_text) %>%
  filter(!is.na(.)) %>%
  kable(format = "markdown")
```

irb_ethics_primary_concern_text

Biomedical research

even mix of “student research” “care process evaluation” and clinical trials (both commercial and NIH/PHS/DoD funded)
