2020 R Community Survey

For the third consecutive year, RStudio is fielding this survey to better understand how people learn and use the R language. We encourage anyone who is interested in R to respond, regardless of whether they have learned the language. We will be accepting submissions through January 8, 2021, at which time the survey will close.

The survey should only require 5 to 10 minutes of your time, depending on how little or how much information you choose to share with us. We value your time and appreciate your input.

Should you prefer a Spanish version of this survey, please go to https://rstd.io/r-survey-es.

Disclosure of how this data will be used

We have designed this survey to minimize personally identifiable data and to protect respondent privacy. We do not collect names, addresses, emails, or phone numbers. We can not and will not contact you as the result of completing this survey.

You can choose not to respond to the demographics questions which collect data including age, gender identification, ethnicity, and formal education. We include these questions only to understand how these factors affect attitudes toward R.

The survey data collected will be published publicly on GitHub in February 2021 under the CC-SA license.

After section 1   Continue to next section   ▾

R Experience

Data from this section helps us understand how much experience you have with R.

How would you rate your level of experience using R? *

○ None

○ Beginner

○ Intermediate

○ Expert

After section 2   Continue to next section   ▾

Section 3 of 18

Your Interest In R

Here we would like to understand why you are interested in learning R but haven't yet.

What is your plan for learning R?

○ By myself using a book or online documentation that is not part of a formal course

○ Through an online course or courses (e.g., Coursera, edX, Datacamp)

○ By taking an In-person course (including bootcamps and workshops as well as more formal courses)

○ On the job working with colleagues who know R

○ Other…

Which statement most closely reflects the primary reason why you are interested in learning R?

○ I am personally interested in R

○ R was part of a course I took

○ R is required for my work

○ I would like to use a specific R package (for example, tidyverse, tidymodels, RMarkdown, etc.)

○ I would like to build interactive applications (e.g., Shiny applications, dashboards, web apps)

○ I want to do statistical analyses

○ I think knowing R would open new career opportunities

○ Other...

If you were to learn R, what would do you think you would use it for? (check all that apply)

- [ ] Statistical analysis
- [ ] Data cleaning or manipulation
- [ ] Visualization
- [ ] Machine learning/modeling
- [ ] Text analysis
- [ ] Genomics
- [ ] Medicine
- [ ] Clinical trials
- [ ] Survey analysis
- [ ] Financial analysis
- [ ] Other…

Which analytical tools do you use today for the functions that you might learn R for? (please check all that apply)

- [ ] Databricks
- [ ] Jupyter Notebooks
- [ ] Matlab
- [ ] Microsoft Excel
- [ ] Python
- [ ] SAS
- [ ] SPSS
- [ ] Tableau
- [ ] Other…

What do you think is the biggest obstacle you must overcome in trying to learn R? The choices below are only suggestions; if we haven't listed your obstacle, please choose "Other" and add your obstacle in the text.

○ Just getting started

○ Understanding R's data types

○ Using R's Documentation

○ Downloading and installing the software

○ Decoding R's error messages

○ Finding proper packages to use

○ Learning R syntax

○ Learning the RStudio development environment

○ Managing packages

○ R Materials aren't in my native language

○ Learning to use the R command line user interface

○ Other…

After section 3   Go to section 6 (R Markdown)   ▾

Section 4 of 18

How You Learned R

This section helps us understand how you achieved the R skills you have acquired.

What year did you first start learning R?

Please enter a 4-digit year. If you prefer not to answer, leave the answer blank

Short answer text

How did you learn R? If you used multiple methods, please select the one you used the most.

○ By myself using a book or online documentation that was not part of a formal course

○ Online course (e.g., Coursera, edX, Datacamp)

○ In-person course (including bootcamps and workshops as well as more formal courses)

○ On the job

○ Other...

Which statement most closely reflects the primary reason why you learned R?

○ I was personally interested

○ It was part of a course I took

○ It was required for my work

○ I wanted to use a specific R package (for example, tidyverse, tidymodels, RMarkdown, etc.)

○ I wanted to build interactive applications (e.g., Shiny applications, dashboards, web apps)

○ I wanted to do statistical analyses

○ I thought it would open new career opportunities

○ Other...

What do you think was the biggest obstacle you had to overcome in learning R? The choices below are only suggestions; if we haven't listed your obstacle, please choose "Other" and add your obstacle in the text.

○ Just getting started

○ Understanding R's data types

○ Using R's documentation

○ Downloading and installing the software

○ Decoding R's error messages

○ Finding proper packages to use

○ Learning R syntax

○ Learning the RStudio development environment

○ Managing packages

○ R Materials aren't in my native language

○ Learning to use the R command line user interface

○ Other…

After section 4   Continue to next section   ▼

Section 5 of 18

How You Use R

This section helps us understand how you are currently applying R to your work.

How often do you use R today, either for professional or personal projects?

○ More than once a day

○ Between once a day and once a week

○ Between once a week and once a month

○ Less than once a month

○ I don't use R any more

What is the primary operating system that you use for your R work?

○ Apple MacOS

○ Linux (any distribution)

○ Microsoft Windows

○ Other…

What applications do you use R for most? (check all that apply)

- [ ] Statistical analysis
- [ ] Data cleaning or manipulation
- [ ] Modeling/machine learning
- [ ] Visualization
- [ ] Text analysis
- [ ] Genomics
- [ ] Medicine
- [ ] Clinical trials
- [ ] Survey analysis
- [ ] Financial analysis
- [ ] Other...

Please rate how much you enjoy using R on a scale of 1 to 5, where 1 is you don't enjoy it at all, and 5 is that you enjoy it a great deal.

	1	2	3	4	5	
I don't enjoy it at all	○	○	○	○	○	I enjoy it a great deal

How likely are you to recommend R to a colleague, friend, or family member?

	1	2	3	4	5	6	7	8	9	10	
Would definitely not recommend	○	○	○	○	○	○	○	○	○	○	Would definitely recommend

Which tools do you use with your R applications? (please check all that apply)

- [ ] Databricks
- [ ] EMACS ESS mode
- [ ] Jupyter Notebooks
- [ ] JupyterLab 2.0
- [ ] JupyterLab 3.0
- [ ] JupyterHub
- [ ] Matlab
- [ ] Microsoft Excel
- [ ] Python
- [ ] R Command Line (i.e., the native R terminal interface)
- [ ] RStudio Cloud
- [ ] RStudio Connect
- [ ] RStudio Desktop (IDE)
- [ ] RStudio Desktop Pro (IDE)
- [ ] RStudio Server
- [ ] RStudio Server Pro
- [ ] SAS
- [ ] Shinyapps.io
- [ ] Shiny Server
- [ ] Shiny Server Pro

- [ ] SPSS

- [ ] Tableau

- [ ] Other…

Did you use tidyverse packages such as ggplot2 or dplyr to learn R?

- ( ) Yes

- ( ) No

- ( ) I don't know what the tidyverse is

Do you use tidyverse packages when you use R now?

- ( ) Usually

- ( ) Occasionally

- ( ) Rarely

- ( ) Never

- ( ) I don't know what tidyverse is

What do you like best about using R?

Long answer text

What do you like least about using R?

Long answer text

When you have problems in R, where do you go for help?

- [ ] General search websites such as Google and Yahoo

- [ ] Your personal network, such as colleagues and professors

- [ ] Question and answer sites such as Stack Overflow and Quora

- [ ] Social media such as blogs, R-bloggers, Twitter, Slack, or GitHub contacts

- [ ] community.rstudio.com

- [ ] Email lists such as r-help

- [ ] R-specific search websites such as METACRAN or Rdocumentation

- [ ] Other…

How do you discover new packages or packages that are unfamiliar to you?

- [ ] General search websites such as Google and Yahoo

- [ ] community.rstudio.com

- [ ] Email lists such as r-help, r-packages, or r-pkg-devel

- [ ] R-specific search websites such as METACRAN or Rdocumentation

- [ ] R packages built for search such as the sos package

- [ ] CRAN Task Views

- [ ] Your personal network, such as colleagues and professors

- [ ] Conferences, meet-ups, or seminars

- [ ] Books, textbooks, or journal articles (JSS, JOSS, R-Journal)

- [ ] Social media such as blogs, R-bloggers, Twitter, Slack, or GitHub contacts

- [ ] Other…

How do you share the results that you create in R? Check all that apply.

- [ ] Email
- [ ] Personal blog or web site owned by you
- [ ] RStudio Connect site run by my organization
- [ ] Other internal web site or portal run by my organization (for example, Sharepoint)
- [ ] Public web sites such as GitHub or Netlify
- [ ] RPubs.com
- [ ] Shinyapps.io
- [ ] Embedding results in research papers submitted to publications
- [ ] Other…

Looking ahead, how do you expect your use of R to change in 2021?

- ( ) I expect it to decrease
- ( ) I expect it to stay the same
- ( ) I expect it to increase
- ( ) I plan to stop using it

After section 5   Continue to next section   ▾

Section 6 of 18

R Markdown

Thank you for your responses so far!

In the next sections, we'd like to know your experience with other tools that complement R. These sections will be shorter than the previous ones you completed.

To help us ensure that you are not a robot, please type the value of fifteen divided by three in the box below. Please type your answer as a word; for example if you want 3 to be your answer, type "three". *

Short answer text

Do you currently use R Markdown? Choose the statement that most closely matches your use. *

○ I don't use R Markdown

○ Occasionally -- less than once a month

○ Monthly -- between once a week and once a month

○ Weekly -- Between once a day and once a week

○ Daily -- Once or more per day

After section 6   Continue to next section   ▾

R Markdown (continued)

Description (optional)

What applications do you use R Markdown for? Check all that apply.

- [ ] Creating R Notebooks

- [ ] Creating publication-ready articles for submission

- [ ] Creating custom PDF documents using pagedown

- [ ] Building web sites via blogdown

- [ ] Publishing online and offline books via bookdown

- [ ] Creating documentation using pkgdown

- [ ] Creating presentation slides

- [ ] Creating HTML dashboards with flexdashboard

- [ ] Creating Shiny-based interactive documents

- [ ] Other…

After section 7   Continue to next section   ▾

R Markdown (continued)

Description (optional)

Looking forward, how do you expect your use of R Markdown to change in 2021?

- ○ I expect it to decrease
- ○ I expect it to stay the same
- ○ I expect it to increase
- ○ I plan to stop using it

After section 8   Continue to next section   ▾

Shiny Use

Description (optional)

How often do you currently use Shiny, either as a developer or a user? Choose the statement that most closely matches your use.

- ○ Never -- I don't use Shiny
- ○ Occasionally -- less than once a month
- ○ Monthly -- between once a week and once a month
- ○ Weekly -- Between once a day and once a week
- ○ Daily -- Once or more per day

After section 9   Continue to next section   ▾

Shiny Use (continued)

Description (optional)

What do you use Shiny for? (check all that apply)

- [ ] Data exploration

- [ ] Dashboards

- [ ] Mapping applications

- [ ] Interactive tables

- [ ] Narrative storytelling with text and data

- [ ] Other…

After section 10   Continue to next section ▾

Shiny Use (continued)

Description (optional)

Looking forward, how do you expect your use of Shiny to change in 2021?

- ◯ I expect it to decrease

- ◯ I expect it to stay the same

- ◯ I expect it to increase

- ◯ I plan to stop using it

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Python Use

Description (optional)

Do you currently use Python? Choose the statement that most closely matches your use.

○ I don't use Python

○ Occasionally -- less than once a month

○ Monthly -- between once a week and once a month

○ Weekly -- Between once a day and once a week

○ Daily -- Once or more per day

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Python use (continued)

Description (optional)

What applications do you use Python for most? (check all that apply)

- [ ] Statistical analysis
- [ ] Data transformation
- [ ] Modeling
- [ ] Visualization
- [ ] Machine learning
- [ ] Text processing
- [ ] Genomics
- [ ] Medicine
- [ ] Survey analysis
- [ ] Clinical trials
- [ ] Financial analysis
- [ ] Other…

What tools do you use with your Python applications? (check all that apply)

- [ ] Anaconda
- [ ] Conda
- [ ] Databricks
- [ ] Jupyter Notebooks
- [ ] JupyterLab 2.0
- [ ] JupyterLab 3.0

- ☐ JupyterHub
- ☐ Matlab
- ☐ Microsoft Excel
- ☐ R
- ☐ RStudio Cloud
- ☐ RStudio Connect
- ☐ RStudio Desktop (IDE)
- ☐ RStudio Desktop Pro (IDE)
- ☐ RStudio Server
- ☐ RStudio Server Pro
- ☐ SAS
- ☐ Shinyapps.io
- ☐ Shiny Server
- ☐ Shiny Server Pro
- ☐ SPSS
- ☐ Tableau
- ☐ Visual Studio Code
- ☐ Other…

Please rate how much you enjoy using Python on a scale of 1 to 5, where 1 is you don't enjoy it at all, and 5 is that you enjoy it a great deal.

	1	2	3	4	5	
I don't enjoy it at all	○	○	○	○	○	I enjoy it a great deal

How likely are you to recommend Python to a colleague, friend, or family member?

	1	2	3	4	5	6	7	8	9	10	
Would definitely not recommend	○	○	○	○	○	○	○	○	○	○	Would definitely recommend

After section 13   Continue to next section   ▼

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Python Use (continued)

Description (optional)

Looking forward, how do you expect your use of Python to change in 2021?

○ I expect it to decrease

○ I expect it to stay the same

○ I expect it to increase

○ I plan to stop using it

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Other Languages

Description (optional)

What computer languages or tools are you comfortable coding with today?

- [ ] C/C++
- [ ] Excel
- [ ] Go
- [ ] Java
- [ ] Javascript
- [ ] Julia
- [ ] Matlab
- [ ] PHP
- [ ] Python
- [ ] R
- [ ] Ruby
- [ ] Rust
- [ ] SAS
- [ ] SPSS
- [ ] Swift
- [ ] Tableau
- [ ] Visual Basic
- [ ] None
- [ ] Other…

What was the FIRST computer language or tool that you learned?

○ C/C++

○ Excel

○ Go

○ Java

○ Javascript

○ Julia

○ Matlab

○ PHP

○ Python

○ R

○ Ruby

○ Rust

○ SAS

○ SPSS

○ Swift

○ Tableau

○ Visual Basic

○ I am just getting started learning programming

○ Other...

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Demographics

We collect the following information strictly for the purposes of performing demographic cross-tabulations of the data.

What year were you born?

Please enter a 4 digit year. This question is optional; feel free to omit it if you don't feel comfortable providing this information.

Short answer text

What gender do you identify with?

This question is optional; feel free to omit it if you don't feel comfortable providing this information. The purpose of the question is simply to understand the gender distribution of the respondent pool.

Short answer text

I identify my ethnicity as (select all that apply):

This question is optional; feel free to omit it if you don't feel comfortable providing this information. We gather this information only to measure the results of efforts to serve underserved minority ethnicities.

- [ ] Asian

- [ ] Black/African

- [ ] White

- [ ] Hispanic/Latinx

- [ ] Native American

- [ ] Pacific Islander

- [ ] Prefer not to answer

- [ ] Other…

What is the highest degree or level of school you have completed? If currently enrolled, please use the highest degree received.

This question is optional; feel free to omit it if you don't feel comfortable providing this information.

○ Less than a high school diploma

○ High school degree or equivalent (e.g. GED)

○ Some college or university, no college degree

○ Trade/technical/vocational training, no degree awarded

○ Associate degree (e.g. AA, AS)

○ Bachelor's degree (e.g. BA, BS)

○ One or more graduate courses, no graduate degree

○ Master's degree (e.g. MA, MS, MEd)

○ Professional degree (e.g. MD, DDS, DVM)

○ Doctorate (e.g. PhD, EdD)

○ Not part of an institutional education program

○ Other…

In what country do you currently reside?

This question is optional; feel free to omit it if you don't feel comfortable providing this information.

1. Afghanistan

2. Akrotiri

3. Albania

4. Algeria

5. American Samoa

6. Andorra

7. Angola

8. Anguilla

9. Antarctica

10. Antigua and Barbuda

11. Argentina

12. Armenia

13. Aruba

14. Ashmore and Cartier Islands

15. Australia

16. Austria

17. Azerbaijan

18. Bahamas, The

19. Bahrain

20. Bangladesh

21. Barbados

22. Bassas da India

23. Belarus

24. Belgium

25. Belize

26. Benin

27. Bermuda

28. Bhutan

29. Bolivia

30. Bosnia and Herzegovina

31. Botswana

32. Bouvet Island

33. Brazil

34. British Indian Ocean Territory

35. British Virgin Islands

36. Brunei

37. Bulgaria

38. Burkina Faso

39. Burma

40. Burundi

41. Cambodia

42. Cameroon

43. Canada

44. Cape Verde

45. Cayman Islands

46. Central African Republic

47. Chad

48. Chile

49. China

50. Christmas Island

51. Clipperton Island

52. Cocos (Keeling) Islands

53. Colombia

54. Comoros

55. Congo, Democratic Republic of the

56. Congo, Republic of the

57. Cook Islands

58. Coral Sea Islands

59. Costa Rica

60. Cote d'Ivoire

61. Croatia

62. Cuba

63. Cyprus

64. Czech Republic

65. Denmark

66. Dhekelia

67. Djibouti

68. Dominica

69. Dominican Republic

70. Ecuador

71. Egypt

72. El Salvador

73. Equatorial Guinea

74. Eritrea

75. Estonia

76. Ethiopia

77. Europa Island

78. Falkland Islands (Islas Malvinas)

79. Faroe Islands

80. Fiji

81. Finland

82. France

83. French Guiana

84. French Polynesia

85. French Southern and Antarctic Lands

86. Gabon

87. Gambia, The

88. Gaza Strip

89. Georgia

90. Germany

91. Ghana

92. Gibraltar

115. Ireland

116. Isle of Man

117. Israel

118. Italy

119. Jamaica

120. Jan Mayen

121. Japan

122. Jersey

123. Jordan

124. Juan de Nova Island

125. Kazakhstan

126. Kenya

127. Kiribati

128. Korea, North

129. Korea, South

130. Kuwait

131. Kyrgyzstan

132. Laos

133. Latvia

134. Lebanon

135. Lesotho

136. Liberia

137. Libya

138. Liechtenstein

139. Lithuania

140. Luxembourg

141. Macau

142. Macedonia

143. Madagascar

144. Malawi

145. Malaysia

146. Maldives

147. Mali

148. Malta

149. Marshall Islands

150. Martinique

151. Mauritania

152. Mauritius

153. Mayotte

154. Mexico

155. Micronesia, Federated States of

156. Moldova

157. Monaco

158. Mongolia

159. Montserrat

160. Morocco

161. Mozambique

162. Namibia

163. Nauru

164. Navassa Island

165. Nepal

166. Netherlands

167. Netherlands Antilles

168. New Caledonia

169. New Zealand

170. Nicaragua

171. Niger

172. Nigeria

173. Niue

174. Norfolk Island

175. Northern Mariana Islands

176. Norway

177. Oman

178. Pakistan

179. Palau

180. Panama

203. Saudi Arabia

204. Senegal

205. Serbia and Montenegro

206. Seychelles

207. Sierra Leone

208. Singapore

209. Slovakia

210. Slovenia

211. Solomon Islands

212. Somalia

213. South Africa

214. South Georgia and the South Sandwich Islands

215. Spain

216. Spratly Islands

217. Sri Lanka

218. Sudan

219. Suriname

220. Svalbard

221. Swaziland

222. Sweden

223. Switzerland

224. Syria

225. Taiwan

226. Tajikistan

227. Tanzania

228. Thailand

229. Timor-Leste

230. Togo

231. Tokelau

232. Tonga

233. Trinidad and Tobago

234. Tromelin Island

235. Tunisia

236. Turkey

237. Turkmenistan

238. Turks and Caicos Islands

239. Tuvalu

240. Uganda

241. Ukraine

242. United Arab Emirates

243. United Kingdom

244. United States of America

245. Uruguay

246. Uzbekistan

247.   Vanuatu

248.   Venezuela

249.   Vietnam

250.   Virgin Islands

251.   Wake Island

252.   Wallis and Futuna

253.   West Bank

254.   Western Sahara

255.   Yemen

256.   Zambia

257.   Zimbabwe

After section 16   Continue to next section   ⌄

Where You Work

The data from this section helps us understand what type of work you do.

What industry do you work or participate in?

- ○ Accommodation and Food Services
- ○ Arts and Entertainment
- ○ Construction
- ○ Education
- ○ Financial Services and Activities
- ○ Government Services (Federal, State, or Local)
- ○ Health Care and Medicine
- ○ Information Technologies
- ○ Insurance
- ○ Natural Resources and Mining
- ○ Manufacturing
- ○ Military
- ○ Professional and Business Services
- ○ Trade (Retail or Wholesale)
- ○ Transportation
- ○ Research
- ○ Utilities
- ○ Not Employed
- ○ Other…

What is your job title, if any?

Short answer text

Which category best describes the work you do?

○ Administration

○ Consultant or Advisor

○ Data scientist or analyst

○ Educator

○ Financial professional

○ Legal

○ Management

○ Medical professional

○ Sales

○ Software developer

○ Statistician

○ Student

○ Researcher

○ Retired

○ None

○ Other…

How many people in your organization or work group do you feel that you can ask for help or support when working with R?

Short answer text

Do you feel like you are part of the R Community?

○ Yes, definitely

○ Yes, somewhat

○ Neutral

○ No, not really

○ No, not at all

○ I'm not sure

Which of the following events have you attended, if any? Check all that apply. Include any events you attended virtually in 2020.

- [ ] RStudio::conf
- [ ] UseR conference
- [ ] Local or regional R meetup
- [ ] rOpenSci Unconf
- [ ] R Ladies meetups (local, regional, national, or international)
- [ ] R Medicine conference
- [ ] R Pharma conference
- [ ] R Finance conference
- [ ] PyCon conference

How did you hear about this survey?

- ( ) Twitter
- ( ) RStudio web site or blog
- ( ) Email
- ( ) community.rstudio.com
- ( ) From a colleague or friend
- ( ) LinkedIn
- ( ) Facebook
- ( ) Other…

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Thank you!

⌄⌃   ⋮

We appreciate you taking the time to complete our survey. The data you have provided will help RStudio engineers and educators better understand how people learn R and what we can do to make that path easier.

The survey data collected will be published publicly on GitHub in February 2021 under the CC-SA license.