

Table 4-6

## U.S. citizen and permanent resident research doctorate recipients with graduate education-related debt, by ethnicity, race, and broad field of doctorate: 2022

(Number and percent)

| Ethnicity, race, and debt level                               | All fields | Science and engineering |   |                                    |                                   |             |  |                 |                            |   |                   |            | Non-science and engineering |       |          |           |            |                            |                                   |
|---|------------|-------------------------|---|------------------------------------|-----------------------------------|-------------|--|-----------------|----------------------------|---|-------------------|------------|-----------------------------|-------|----------|-----------|------------|----------------------------|-----------------------------------|
|   |            | Total                   | Agricultural sciences and natural resources | Biological and biomedical sciences | Computer and information sciences | Engineering | Geosciences, atmospheric, and ocean sciences | Health sciences | Mathematics and statistics | Multidisciplinary/ interdisciplinary sciences | Physical sciences | Psychology | Social sciences             | Total | Business | Education | Humanities | Visual and performing arts | Other non-science and engineering |
| U.S. citizens and permanent residents reporting graduate debt |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| Total (number) <sup>a</sup>                                   | 33,355     | 25,434                  | 714   | 6,494                              | 731                               | 4,216       | 704  | 1,870           | 901                        | 747   | 2,967             | 3,021      | 3,069                       | 7,921 | 605      | 2,951     | 2,461      | 587                        | 1,317                             |
| Debt > \$30,000 (%)   | 20.3       | 16.6                    | 15.4  | 10.8                               | 7.8                               | 7.2         | 5.8  | 36.6            | 8.3                        | 13.8  | 5.8               | 38.1       | 26.5                        | 32.2  | 26.6     | 39.3      | 24.7       | 26.2                       | 35.5                              |
| Debt > \$70,000 (%)   | 12.2       | 9.8                     | 8.7   | 5.3                                | 4.2                               | 3.0         | 2.4  | 23.3            | 4.3                        | 8.4   | 2.8               | 26.4       | 16.6                        | 19.9  | 19.0     | 24.2      | 14.4       | 15.2                       | 23.3                              |
| Hispanic or Latino  |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| Total (number) <sup>a</sup>                                   | 3,192      | 2,415                   | 68  | 703                                | 41                                | 349         | 59   | 152             | 55                         | 78  | 245               | 341        | 324                         | 777   | 45       | 312       | 256        | 57                         | 107                               |
| Debt > \$30,000 (%)   | 25.0       | 21.4                    | 23.5  | 13.4                               | D                                 | 9.7         | 13.6   | 36.8            | D                          | 21.8  | 8.6               | 44.0       | 35.2                        | 36.2  | 33.3     | 45.8      | 25.0       | 22.8                       | 43.0                              |
| Debt > \$70,000 (%)   | 15.3       | 12.5                    | 10.3  | 6.3                                | D                                 | 4.6         | D  | 21.1            | D                          | 15.4  | 4.5               | 30.2       | 22.5                        | 23.8  | D        | 30.1      | 14.8       | D                          | 31.8                              |
| Not Hispanic or Latino  |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| American Indian or Alaska Native                              |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| Total (number) <sup>a</sup>                                   | 83         | 52                      | D   | 7                                  | D                                 | D           | 0  | D               | D                          | D   | 8                 | 17         | 31                          | D     | 18       | D         | D          | D                          | 7                                 |
| Debt > \$30,000 (%)   | 37.3       | 36.5                    | D   | D                                  | 0.0                               | 0.0         | -  | D               | 0.0                        | D   | D                 | 52.9       | 38.7                        | 0.0   | D        | 0.0       | D          | D                          | D                                 |
| Debt > \$70,000 (%)   | 24.1       | 25.0                    | D   | D                                  | 0.0                               | 0.0         | -  | 0.0             | 0.0                        | D   | 0.0               | D          | 22.6                        | 0.0   | D        | 0.0       | D          | D                          | D                                 |
| Asian   |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| Total (number) <sup>a</sup>                                   | 3,410      | 2,874                   | 40  | 808                                | 145                               | 645         | 43   | 180             | 113                        | 97  | 313               | 214        | 276                         | 536   | 105      | 155       | 118        | 49                         | 109                               |
| Debt > \$30,000 (%)   | 9.4        | 8.1                     | 12.5  | 5.4                                | 4.8                               | 5.4         | D  | 21.7            | 4.4                        | 6.2   | 2.6               | D          | 10.5                        | 16.4  | D        | D         | 16.1       | D                          | D                                 |
| Debt > \$70,000 (%)   | 4.9        | 4.1                     | D   | 2.6                                | D                                 | 1.7         | 0.0  | 12.8            | D                          | D   | D                 | D          | 5.1                         | 9.0   | D        | D         | 7.6        | D                          | D                                 |
| Black or African American                                     |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| Total (number) <sup>a</sup>                                   | 2,506      | 1,539                   | 34  | 310                                | 40                                | 183         | 15   | 259             | 26                         | 36  | 81                | 274        | 281                         | 967   | 81       | 541       | 132        | 30                         | 183                               |
| Debt > \$30,000 (%)   | 52.0       | 45.2                    | 44.1  | D                                  | 35.0                              | 18.6        | D  | 63.7            | 26.9                       | 47.2  | 21.0              | 69.0       | 53.7                        | 62.9  | 69.1     | 64.7      | 47.7       | 56.7                       | 66.7                              |
| Debt > \$70,000 (%)   | 38.4       | 33.7                    | D   | D                                  | 22.5                              | 9.8         | D  | 49.4            | D                          | 30.6  | D                 | 58.0       | 43.8                        | 45.8  | 58.0     | 45.3      | 32.6       | 23.3                       | 55.2                              |
| White   |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| Total (number) <sup>a</sup>                                   | 22,507     | 17,247                  | 541   | 4,328                              | 458                               | 2,798       | 560  | 1,207           | 639                        | 486   | 2,185             | 2,032      | 2,013                       | 5,260 | 349      | 1,813     | 1,831      | 418                        | 849                               |
| Debt > \$30,000 (%)   | 17.7       | 14.6                    | 12.2  | 10.1                               | 6.8                               | 6.4         | 5.0  | 32.6            | 8.5                        | 11.7  | 5.6               | 34.1       | 23.2                        | 27.6  | 21.2     | 32.4      | 23.4       | 27.3                       | 29.1                              |
| Debt > \$70,000 (%)   | 10.0       | 8.3                     | 7.0   | 5.0                                | 3.7                               | 2.6         | 2.3  | 19.4            | 4.1                        | 7.0   | 2.5               | 22.4       | 13.2                        | 15.7  | D        | 18.4      | 13.2       | D                          | 16.0                              |
| More than one race  |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| Total (number) <sup>a</sup>                                   | 1,188      | 956                     | 17  | 270                                | 25                                | 164         | 22   | 50              | 48                         | 26  | 107               | 116        | 111                         | 232   | 12       | 78        | 77         | 20                         | 45                                |
| Debt > \$30,000 (%)   | 19.3       | 16.3                    | D   | 12.2                               | D                                 | D           | D  | 46.0            | D                          | D   | D                 | 37.1       | 27.9                        | 31.5  | D        | 30.8      | 27.3       | D                          | 46.7                              |
| Debt > \$70,000 (%)   | 10.6       | 8.7                     | D   | 4.8                                | 0.0                               | D           | 0.0  | 26.0            | D                          | D   | D                 | 24.1       | D                           | 18.5  | D        | 14.1      | 16.9       | 0.0                        | D                                 |
| Other race or race not reported                               |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |
| Total (number) <sup>a</sup>                                   | 294        | 220                     | D   | 43                                 | D                                 | D           | 2  | D               | D                          | D   | D                 | 23         | 34                          | 74    | D        | 21        | D          | D                          | 11                                |
| Debt > \$30,000 (%)   | 23.5       | 20.0                    | 20.0  | 14.0                               | D                                 | D           | 0.0  | D               | 7.7                        | D   | D                 | 56.5       | 26.5                        | 33.8  | 33.3     | 38.1      | 38.5       | 14.3                       | 27.3                              |
| Debt > \$70,000 (%)   | 15.0       | 12.3                    | 0.0   | 4.7                                | 0.0                               | D           | 0.0  | 36.4            | 0.0                        | 5.9   | D                 | 43.5       | 23.5                        | 23.0  | 22.2     | 28.6      | 23.1       | 14.3                       | 18.2                              |
| Ethnicity not reported  |            |                         |   |                                    |                                   |             |  |                 |                            |   |                   |            |                             |       |          |           |            |                            |                                   |

**Table 4-6**  
**U.S. citizen and permanent resident research doctorate recipients with graduate education-related debt, by ethnicity, race, and broad field of doctorate: 2022**  
 (Number and percent)

| Ethnicity, race, and debt level | All fields | Science and engineering |   |                                    |                                   |             |  |                 |                            |   |                   |            | Non-science and engineering |       |          |           |            |                            |                                   |
|---------------------------------|------------|-------------------------|---|------------------------------------|-----------------------------------|-------------|--|-----------------|----------------------------|---|-------------------|------------|-----------------------------|-------|----------|-----------|------------|----------------------------|-----------------------------------|
|                                 |            | Total                   | Agricultural sciences and natural resources | Biological and biomedical sciences | Computer and information sciences | Engineering | Geosciences, atmospheric, and ocean sciences | Health sciences | Mathematics and statistics | Multidisciplinary/ interdisciplinary sciences | Physical sciences | Psychology | Social sciences             | Total | Business | Education | Humanities | Visual and performing arts | Other non-science and engineering |
| Total (number) <sup>a</sup>     | 175        | 131                     | 5   | 25                                 | 6                                 | 38          | 3  | 8               | 5                          | 6   | 9                 | 13         | 13                          | 44    | 2        | 13        | 19         | 4                          | 6                                 |
| Debt > \$30,000 (%)             | 20.0       | 16.0                    | 40.0  | 0.0                                | 16.7                              | 18.4        | 0.0  | 25.0            | 0.0                        | 0.0   | 0.0               | 38.5       | 30.8                        | 31.8  | 50.0     | 46.2      | 15.8       | 0.0                        | 66.7                              |
| Debt > \$70,000 (%)             | 14.9       | 10.7                    | 40.0  | 0.0                                | 16.7                              | 5.3         | 0.0  | 25.0            | 0.0                        | 0.0   | 0.0               | 38.5       | 15.4                        | 27.3  | 50.0     | 38.5      | 15.8       | 0.0                        | 50.0                              |

- = not calculable; D = suppressed to avoid disclosure of confidential information.

<sup>a</sup> Includes all doctorate recipients who responded to the graduate school debt question, even if they reported they had no debt.

**Note(s):**  
 Percentages were calculated based on the number of cases in each category. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at <https://nces.nsf.gov/pubs/nces23200>).

**Source(s):**  
 National Center for Science and Engineering Statistics, Survey of Earned Doctorates.