

FIGURE TEXT:

Figure 1. NIDDK Extramural Research Funding by Mechanisms (excluding Special Statutory Type 1 Diabetes Program) From FY2014 to FY2023

This is a horizontal bar chart whose x-axis displays percentages from zero to one hundred in increments of twenty percentage points. The y-axis shows fiscal years ascending from the bottom, starting with 2014 and ending with 2023 in increments of one year. Each horizontal bar corresponds to a fiscal year and is split into the following categories in order from left to right: Research Project Grants (RPGs), Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR), Research Centers, Research Careers, Other Research, Training, and Contracts/Interagency Agreement (IAA). In general, most categories represent the same proportion of the budget from year to year. The RPG budget is over seventy percent of the NIDDK extramural budget.

Figure 2: NIDDK Research Project Grants Funding by Activity Codes (Competing and Non-Competing, excluding Special Statutory Type 1 Diabetes Program) from FY2014 to FY2023

This is a horizontal bar chart whose x-axis displays percentages from zero to one hundred in increments of twenty percentage points. The y-axis shows fiscal years ascending from the bottom, starting with 2014 and ending with 2023 in increments of one year. Each horizontal bar corresponds to a fiscal year and is split into the following categories in order from left to right: R01, R21, R37, P01, U01, Other R (includes DP), and Other U. Starting in 2016, the R01 awards represent a larger proportion of RPG awards, increasing from 70 percent in 2015 to 84 percent in 2023. During these same years the fraction of R37, P01, and U01 awards decreased somewhat, with U01s showing more significant fluctuations going from 17% in 2015 to 8.2% in 2023.

Table 1: NIDDK Investigator-Initiated R01 Paylines

Table 1 details the NIDDK payline thresholds by fiscal year. The columns from left to right are the fiscal year, general payline, grants over \$500,000 in direct costs payline, the new investigator payline, the Early Stage Investigator (ESI) payline, and the ESI first competitive grant renewal payline. The rows from top to bottom are the Fiscal Years from 2011 to 2023 and contain the payline values for the columns described.

Figure 3A: Number of NIDDK Investigator-Initiated (excluding ESI) R01 Applications and Competing Awards in FY2023 By Percentile Score

This is a stacked bar chart whose x-axis is percentiles from one to fifty in increments of one. The y-axis is the number of applications or awards from zero to fifty in increments of five. Each bar shows the total number of applications and awards that were scored at that percentile. For some bars, there are two colored areas, one showing the number of unfunded applications, in orange, and one showing the number of awards, in blue, at that percentile. These data demonstrate that nearly all applications that scored at or below the payline (the sixteenth percentile) received funding in fiscal year 2023. The fraction of applications that are funded tapers off at increasing percentiles, with no applications funded at a percentile of forty-three or higher.

Figure 3B: Number of NIDDK Early Stage Investigator (ESI)-Initiated R01 Applications and Competing Awards in FY2023 By Percentile Score

This is a stacked bar chart whose x-axis is percentiles from one to fifty in increments of one. The y-axis is the number of applications or awards from zero to sixteen in increments of two. Each bar shows the total

number of applications and awards that were scored at that percentile. For some bars, there are two colored areas, one showing the number of unfunded ESI applications, in orange, and one showing the number of awards, in blue, at that percentile. These data demonstrate that nearly all applications that scored at or below the payline (the twenty-fifth percentile) received funding in fiscal year 2023. The fraction of applications that are funded tapers off at increasing percentiles, with no applications funded at a percentile of thirty-six or higher.

Figure 4: Number of Competing NIDDK R01 Applications Received for Funding from FY2014-FY2023

This is a stacked bar chart whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis shows the number of competing R01 applications received; it ranges from zero to three thousand five hundred in increments of five hundred. For each fiscal year, the height of the bar represents the total number of competing R01 applications received by NIDDK, and the bar is subdivided to indicate the portion of applications that are new, in blue, and the portion that are renewals, in orange. The data table below the graph provides the actual values for each group across the fiscal years.

Figure 5: Total Number of NIDDK R01 Awards from FY2014-FY2023

This is a stacked bar chart whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis shows the number of R01 awards and ranges from zero to three thousand in increments of 500. The total height of the bar in each fiscal year represents the total number of R01 grants as non-competing awards (gray), new competing awards (blue), and renewal competing awards (orange). The data table below the graph provides the actual values for each group across the fiscal years.

Figure 6: Total NIDDK R01 Award Costs, Competing and Non-competing (Includes Direct and Indirect Costs) with adjustments for inflation from FY2014-FY2023

This is a line chart whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis shows total awarded dollars from six hundred million dollars to thirteen hundred million dollars in increments of one hundred million dollars. There are two lines on the chart and from top to bottom, using 2023 as the reference point, represent: 1) the actual total cost of R01 grants awarded (blue); and 2) the total cost of R01 grants awarded when adjusted for inflation using the Biomedical Research and Development Price Index (BRDPI) (orange). Both lines on the chart starts slightly above seven hundred million dollars in 2014. The total cost of R01 awards rises steadily from 2014 to 2023 where it reaches just above twelve hundred million dollars. The BRDPI line has a lesser increase from 2014 to 2023 where it rises to just over nine hundred million dollars.

Figure 7: Mean & Median NIDDK R01 Award Costs, Competing and Non-competing (Includes Direct and Indirect Costs) from FY2014-FY2023

This is a line chart whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis displays dollar amounts ranging from two hundred fifty thousand dollars to five hundred fifty thousand dollars in increments of fifty thousand dollars. There are two lines on the chart. Using 2014 as the reference point, the top line (blue) represents the mean award cost. The lower line (orange) represents the median award cost. In 2014, the mean cost is about three hundred seventy-five thousand dollars and steadily increases to about four hundred ninety thousand dollars in 2023. In 2014, the median cost is about three

hundred thirty thousand dollars and steadily increases to about four hundred ninety thousand dollars in 2023.

Figure 8: Single and Multi-PI (MPI) Competing and Non-competing R01 Awards from FY2014 to FY2023

This is a stacked bar chart whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis displays the number of R01 awards from zero to three thousand in increments of five hundred. Each vertical bar represents the total project count for each fiscal year. Each bar is divided to show the R01 awards that have a single principal investigator (PI) (blue), and R01 awards that have multiple PIs (Multi-PI) (orange). In 2014 there were about two thousand R01 awards with approximately eleven percent of those awards having a multi-PI component. From 2014 to 2023, the number of R01 awards steadily increased and reached over two thousand four hundred awards. During the same time period, the number of multi-PI grants also increased steadily. The number above each bar represents the proportion of multi-PI R01 awards in each fiscal year.

Figure 9A: NIDDK Competing and Non-competing Human Subjects Research Cost and Project Count across the entire DK Portfolio.

This is a combined vertical bar chart, in blue, with a line graph, in orange, whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis on the left side of the chart displays the project count number from zero to two thousand in increments of two hundred and correspond to the blue bars on the chart. The y-axis on the right side of the chart displays the cost in millions ranging from zero to eleven hundred million in increments of one hundred million dollars and are associated with the orange line on the chart. The project count of human subjects research in 2014 is about one thousand five hundred, and steadily increases to about one thousand eight hundred in 2018 and remained relatively constant from 2018 to 2023. The total cost of human subject research in 2014 was about seven hundred million dollars and steadily increased to eight hundred sixty million dollars in 2018. There were increases and decreases in spending from 2018 to 2023. In 2023, approximately nine hundred fifty million dollars was spent on Human Subjects research.

Figure 9B: NIDDK Competing and Non-competing Human Subjects Research Cost and Project Count in the R01 Portfolio.

This is a combined vertical bar chart, in blue, with a line graph, in orange, whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis on the left side of the chart displays the R01 project count number from zero to one thousand in increments of one hundred and correspond to the blue bars on the chart. The y-axis on the right side of the chart displays the cost in millions ranging from zero to six hundred million in increments of one hundred million dollars and are associated with the orange line on the chart. The R01 project count of human subjects research in 2014 is about six hundred, and steadily increases to about nine hundred fifty in 2023. The total cost of human subject research in 2014 was about two hundred seventy million dollars and steadily increased to five hundred million dollars in 2023.

Figure 10A: NIDDK Competing and Non-competing Grant Count and Total Cost with Clinical Trial Research.

This is a combined vertical bar chart, in blue, with a line graph, in orange, whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis on the left side of the chart displays the project

count number from zero to eight hundred in increments of one hundred and correspond to the blue bars on the chart. The y-axis on the right side of the chart displays the cost in millions ranging from zero to four hundred million in increments of fifty million dollars and are associated with the orange line on the chart. The project count of clinical trials research in 2014 is about three hundred seventy and steadily increases to about four hundred forty trials in 2016. There was a slight decrease in 2017 to four hundred ten trials and then a steady increase up to about six hundred eighty trials in 2023. The total cost of clinical trials research in 2014 was about two hundred ten million dollars and steadily increased to three hundred seventy million dollars in 2023.

Figure 10B: NIDDK Competing and Non-competing Grant Count and Total Cost with Clinical Trial Research in the R01 Portfolio.

This is a combined vertical bar chart, in blue, with a line graph, in orange, whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis on the left side of the chart displays the project count number from zero to four hundred fifty in increments of fifty and correspond to the blue bars on the chart. The y-axis on the right side of the chart displays the cost in millions ranging from zero to two hundred fifty million in increments of fifty million dollars and are associated with the orange line on the chart. The project count of clinical trials research between 2014 and 2017 was relatively steady at about one hundred twenty. Beginning in 2018 there were about one hundred seventy projects and a steady increase to about four hundred trials in 2023. The total cost of R01 clinical trial research from 2014 to 2017 was about fifty million dollars and steadily increased to two hundred million dollars in 2023.

Figure 11: Number of Investigators at Various Career Stages Supported by at Least One R01 from FY2014 to FY2023

This is a vertical stacked bar chart whose x-axis displays fiscal years from 2014 to 2023 in increments of one year. The y-axis displays numbers of principal investigators (PIs) from zero to three thousand in increments of five hundred. The total height of the bar each year represents the number of unique investigators supported by NIDDK R01 awards. Each bar is divided to show the number of PIs at various career stages (from bottom to top): Early Stage Investigators (ESI) in blue, New Investigators (NI) in orange, and Established Investigators in gray. The number of PIs with a R01 has fluctuated over time. The data table below the graph provides the actual values for each group across the fiscal years.

Figure 12: Number of NIDDK ESI R01 Applications and Awarded Grants (FY2014-FY2023)

This is a stack bar chart whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis displays the application count in numbers from zero to five hundred in increments of fifty. Each bar represents the total number of ESI R01 applications and awards. In each bar, there are two colored areas, showing the number of unfunded ESI applications, in blue, and the number of ESI awards, in orange. The data table below the graph provides the actual values for each group across the fiscal years.

Figure 13: Median and Mean Ages of NIDDK R01 Investigators, from FY2014 to FY2023

This is a line chart whose x-axis shows fiscal years between 2014 and 2023 in increments of one year. The y-axis displays the age of investigators from forty-nine point five years to fifty-four years in increments of zero point five years. There are two lines on the chart, from top to bottom: 1) the mean age in blue, and the median age in orange. The mean age of investigators was fifty-two point three in fiscal years 2014 and 2015.

There is a steady increase in the mean age beginning in fiscal year 2015 increasing from fifty-two point three, up to fifty-three point two in fiscal year 2019. Starting in fiscal year 2020, there was a decrease in the mean age going from fifty-three point one in fiscal year 2020 and decreasing to fifty-two point nine in fiscal year 2022. In 2023, the mean age increased to fifty-three point five. The median age of investigators in fiscal year 2014 and 2015 was fifty-one years. Investigator median age then increased to fifty-two in fiscal year 2016 through 2020, before decreasing to fifty-one years in fiscal years 2021 and 2022. The mean age in 2023 increased to fifty two years.

Table 2: NIDDK R01 PI demographic information by race from FY2014 to FY2023

Table 2 details the NIDDK R01 PI demographic information by race. The columns from left to right are White, Asian, Black or African-American, American Indian/Alaska Native, Native Hawaiian or Other Pacific Islander, Unknown, Withheld, More than One Race. The rows, from top to bottom, are the Funded R01 PIs, PIs who submitted R01 applications, and Success Rate. For the Funded R01 PIs, and PIs who submitted R01 applications, the value represents the total number of individuals in each group. The Success Rate represents the percentage of the funded PIs in relation to the PIs who submitted an application. For five of the cells within the table, data had to be redacted per NIH policy because the number of people counted was less than eleven. The values in these cases are represented as a double asterisk.

Figure 14: NIDDK-supported Competing and Non-competing Training Award Total Costs of Select Mechanisms (Includes Direct and Indirect Costs) from FY2014-FY2023

This is a line chart whose x-axis displays fiscal years 2014 to 2023 in one year increments. The y-axis shows total cost in millions from zero to ninety in increments of ten. There are four lines on the chart, which display (from top to bottom): 1) K awards, in gray; 2) T32 awards, in yellow, 3) F-awards, in orange, and 4) TL1 awards, in blue. K awards accounted for approximately seventy million dollars in 2014 and up to eighty million dollars in 2023. T32 awards remained relatively flat from fiscal year 2014 to 2016 at approximately forty million dollars, then slightly increased from 2017 to 2019 to about forty-seven million dollars and then decreased in fiscal years 2020 to 2023 to approximately forty million dollars. Between fiscal years 2014 and 2023, F-award spending remained relatively constant at approximately ten million dollars of extramural funding. TL1 awards began in 2021 at approximately two million dollars and increased to six million eight hundred dollars in 2023.

Figure 15: Number of NIDDK-supported Competing and Non-competing Fellowship (F) Awards by Activity Code from FY2014-FY2023

This is a line chart whose x-axis displays fiscal years from 2014 through 2023 in increments of one year. The y-axis displays number of awards from zero to one hundred sixty in increments of twenty and includes both competing and non-competing awards. There are three lines from top to bottom, using 2014 as the reference point: 1) F32, in yellow, 2) F30, in orange, 3) F31, in gray. For the F32 awards, this line starts at about one hundred forty in 2014, and had fluctuations of increases and decreases across each year and then declines to about seventy awards in fiscal year 2023. For the F30 awards in fiscal years 2014-2016, there were about ninety awards. From 2017 to 2023 there were slight increases and decreases. There were approximately eighty awards made in 2023. F31 awards increased from about thirty awards in 2014 to one hundred forty-three awards in 2023.

Figure 16A: Number of NIDDK-supported Competing and Non-competing Career Development (K) Awards by Activity Code from FY2014-FY2023

This is a line chart whose x-axis displays fiscal years from 2014 through 2023 in increments of one year. The y-axis displays the project count from zero to two hundred fifty in increments of fifty and includes both competing and non-competing awards. There are five lines from top to bottom, using 2014 as the reference point: 1) K01, in orange, 2) K08, in gray, 3) K23, in yellow, 4) K24, in blue, and 5) K99, in green. The data table below the graph provides the actual values for each activity code across the fiscal years. Any cell that has no value, should be considered as zero.

Figure 16B: Number of New (Type 1) NIDDK-supported Competing Career Development (K) Awards by Activity Code from FY2014-FY2023

This is a line chart whose x-axis displays fiscal years from 2014 through 2023 in increments of one year. The y-axis displays the project count from zero to sixty in increments of ten and includes only competing awards. There are five lines from top to bottom, using 2014 as the reference point: 1) K01, in orange, 2) K08, in gray, 3) K23, in yellow, 4) K99, in green, and 5) K24, in blue. The data table below the graph provides the actual values for each activity code across the fiscal years. Any cell that has no value, should be considered as zero.

Figure 17: Number of NIDDK-supported T32 Trainees and Project Count from FY2014-FY2022

This is a combined vertical bar chart, in orange, with a line graph, in blue, whose x-axis shows fiscal years between 2014 and 2022 in increments of one year. The y-axis on the left side of the chart displays the number of T32 trainees from zero to nine hundred in increments of one hundred and correspond to the orange bars on the chart. The y-axis on the right side of the chart displays the T32 project count ranging from zero to two hundred fifty in increments of fifty and are associated with the blue line on the chart. In fiscal year 2014 there were approximately eight hundred trainees. There was a steady decrease in each fiscal year from 2014 to 2022. There were six hundred thirty trainees in fiscal year 2022. The number of T32 projects remained stable at about two hundred projects from fiscal years 2014 to 2016. Since fiscal year 2017, the number of T32 projects declined to about one hundred fifty in fiscal year 2022.

Table 3: Number of NIDDK-supported TL1 Trainees and Project Count from FY2021-FY2023

Table 3 details the number of NIDDK-supported TL1 Trainees and Project Count from FY2021-FY2023. The columns from left to right are Fiscal Year, Number of Trainees, and Project Count. The rows, from top to bottom, are the fiscal years from 2021 to 2023 and contain the values for the columns described.