

Figure Text

FIGURE 1: NUMBER OF NIDDK COMPETING R01 APPLICATIONS SCORING WITHIN THE TOP 50TH PERCENTILE AND NUMBER OF NIDDK PERCENTILED R01 APPLICATIONS FUNDED IN FY 2017

This is a vertical bar chart whose x-axis is percentiles in increments of one from one to fifty. The y-axis is the number of applications or awards from zero to fifty in increments of five. There are two vertical bars for each percentile, one showing the number of applications and one showing the number of awards at that percentile. The bars show that nearly all applications that scored at or below the payline (the twelfth percentile) received funding in fiscal year 2017.

FIGURE 2: NIDDK COMPETING R01 APPLICATION FUNDING CURVES FOR FY 2008-2017

This is a line graph whose x-axis shows percentiles from one to fifty in binned increments of five (for example, bin one to five, bin six to ten, bin eleven to fifteen, etc.). The y-axis indicates the percentage of applications that were funded in fiscal years 2008 through 2017 and ranges from zero to one hundred percent in increments of ten. For each of the fiscal years in the chart there is initially a flat or nearly flat line indicating that nearly one hundred percent of applications that scored below the payline for that fiscal year were funded. Then each line declines steeply around the payline value to zero percent at the upper percentile range. Because paylines change each year, the point on the line where percent funded values decline is different each year.

FIGURE 3: CUMULATIVE PERCENTAGE OF R01 AWARDS ACROSS PERCENTILES (FY 2008-2017)

This is a line chart whose x-axis shows percentiles from one to forty-six and a final bin labeled as “not percentiled”. The y-axis shows the percent of the total number of R01 and R37 grants funded and ranges from zero to one hundred percent. There is a line for each of the ten fiscal years that shows the cumulative percent of grants funded at each percentile point. Each line ascends from near zero at the first percentile to one hundred percent (or very near one hundred percent in fiscal year 2017), approaching one hundred percent near the payline for in each year. In each year there is some small percentage of grants funded that scored beyond the payline. The years with lower paylines have steeper curves.

In fiscal years 2016 and 2017 a limited number of R01 applications in response to specific Funding Opportunity Announcements received a priority score, but not a percentile score. Some of these applications were funded and hence included in this chart. Because of this, the lines for fiscal years 2016 and 2017 do not reach one hundred percent until the line reaches the final not percentiled bin. No unscored applications were funded in fiscal year 2017.

FIGURE 4: NUMBER OF COMPETING NIDDK R01 APPLICATIONS (INCLUDING RESUBMISSIONS) RECEIVED FOR FUNDING CONSIDERATION IN FY 1997-2017

This is a line chart whose x-axis shows fiscal years between 1997 and 2017 in increments of one year. The y-axis shows the number of R01 applications received; it ranges from zero to three thousand five hundred in increments of five hundred. There are three lines on the chart (from top to bottom): “Total”—this line starts at about one thousand six hundred in fiscal year 1997, ascends to about two thousand five hundred in fiscal year 2006, declines to about two thousand two hundred in fiscal year 2009, rises to about two thousand four hundred in fiscal year 2010, and after a series of small declines and inclines rises to approximately two thousand nine hundred fifty in fiscal year 2016, falling slightly to two thousand seven hundred eighty five in fiscal year 2017; 2) “New”—this line shows a nearly identical pattern to line one but starts at about nine hundred fifty in fiscal year 1997 and ends at about two thousand four hundred in fiscal year 2017; and 3) “Renewal”—this line starts at about six hundred in fiscal year 1997, stays nearly flat until increasing to about seven hundred during fiscal years 2006-2008, and then declines somewhat, especially after fiscal year 2010 to three hundred seventy eight in fiscal year 2017.

FIGURE 5: NUMBER OF NIDDK R01/R37 GRANTS (COMPETING AND NON-COMPETING) FUNDED IN FY 1997-2017

This is a line chart whose x-axis shows fiscal years between 1997 and 2017 with increments of one year. The y-axis shows the number of awards and ranges from zero to twenty-five hundred (two thousand five hundred). There are five lines on the chart (from top to bottom): 1) “All funded”—this line starts at about one thousand six hundred and rises to about two thousand four hundred in fiscal year 2005, then declines to slightly under two thousand in fiscal year 2017; 2) “Noncompeting”—this line follows the same general pattern as the “all funded” line but starts at about one thousand one hundred in fiscal year 1997 and ends just above one thousand five hundred in fiscal year 2017; 3) “All competing”—this line starts at five hundred in 1997 and stays essentially flat through all fiscal years; 4) “New”—this line starts approximately two hundred thirty in fiscal year 1997 and stays essentially flat with a small dip in fiscal years 2011 through 2013 to about three hundred in fiscal year 2017; and 5) “Renewal”—this line overlaps extensively with the “New” line until fiscal year 2010 when it begins a slight decline to about one hundred twenty in fiscal year 2017.

FIGURE 6: OVERALL NIDDK EXPENDITURES (INCLUDES DIRECT AND FACILITIES AND ADMINISTRATIVE COSTS) ON R01 AWARDS (COMPETING AND NON-COMPETING) IN FY 1997-2017

This is a line chart whose x-axis shows fiscal years between 1997 and 2017 in increments of one year. The y-axis shows total awarded dollars from zero to one billion dollars in increments of one hundred million dollars. There is a single line on the chart, which starts just under four hundred million dollars in 1997, then rises steadily to about seven hundred fifty million dollars in fiscal year 2005 where it stays almost flat until fiscal year 2008. By 2010 it rises to about eight hundred sixty million dollars but then declines to seven hundred fifty million dollars in fiscal year 2013. The line then rises somewhat to just over eight hundred forty eight million dollars in fiscal year 2017.

FIGURE 7: MEDIAN TOTAL COSTS (INCLUDES DIRECT AND FACILITIES AND ADMINISTRATIVE COSTS) OF NIDDK R01 GRANTS (COMPETING AND NON-COMPETING) IN FY 1997-2017

This is a line chart whose x-axis shows fiscal years between 1997 and 2017 in increments of one year. The y-axis displays dollar amounts ranging from zero to four hundred thousand dollars in increments of fifty thousand dollars. There is a single line on the chart. It starts in fiscal year 1997 at about two hundred thousand dollars and rises steadily to just over three hundred thousand dollars in fiscal year 2005. It is then essentially flat until fiscal year 2008 when it rises with some fluctuations to just over three hundred eighty thousand dollars in 2017.

FIGURE 8: NIDDK EXTRAMURAL RESEARCH FUNDING BY CATEGORY (COMPETING AND NON-COMPETING)

This is a horizontal bar chart whose x-axis displays percentages from zero to one hundred in increments of ten percentage points. The y-axis shows fiscal years ascending from the bottom, starting with 2008 and ending with 2017 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/R37, Other R, Initiatives, Collaborative Grants, Centers, Career Development, Training, Other Research, and Contracts/Interagency Agreements. In general, most categories represent the same proportion of the budget from year to year. However, contracts and interagency agreements decreased from about nine percent in 2007 to about two percent in fiscal year 2011. Since then the proportion of the budget devoted to these mechanisms has remained in the two to three percent range. Other Research mechanisms have grown from the one to two percent range in fiscal years 2007 to 2011 to the four to five percent range in fiscal years 2012 to 2016, but reverted to about two percent in fiscal year 2017. Initiatives remained at about 11 percent of the budget until fiscal year 2017, when Initiatives increased to 15 percent. Other mechanisms’ percentage of the funding budget have remained fairly constant over this span of fiscal years.

FIGURE 9: MAINTAINING A STABLE POOL OF NIDDK INVESTIGATORS— NUMBER OF INVESTIGATORS SUPPORTED BY AT LEAST ONE R01 OR R37

This is a vertical bar chart whose x-axis displays fiscal years from 2008 to 2017 in increments of one year. The y-axis displays counts of investigators from zero to two thousand five hundred in increments of five hundred. There is one vertical bar for each year. The number of principle investigators with an R01 or R37 has fluctuated only modestly over time with approximately one thousand nine hundred investigators supported by at least one R01 or R37 award in fiscal year 2008 and also in fiscal year 2017.

FIGURE 10: PRESERVING A STABLE POOL OF NEW INVESTIGATORS— NUMBER OF NIDDK NEW INVESTIGATOR R01 APPLICATIONS AND AWARDS

This is a vertical bar chart whose x-axis shows fiscal years between 2008 and 2017 in increments of one year. The y-axis displays numbers from zero to nine hundred in increments of one hundred. There are two vertical bars for each fiscal year, one of which shows New Investigator R01 applications and the other of which shows New Investigator R01 awards in that year. The number of New Investigator applications fluctuates between approximately six hundred eighty and seven hundred sixty over these years and the number of awards fluctuates slightly around one hundred each year.

FIGURE 11: PRESERVING A STABLE POOL OF NEW INVESTIGATORS—NUMBER OF NIDDK EARLY STAGE INVESTIGATOR (ESI) R01 APPLICATIONS AND AWARDS

This is a vertical bar chart whose x-axis shows fiscal years between 2010 (when the ESI data collection began) and 2017 in increments of one year. The y-axis displays numbers from zero to four hundred fifty in increments of fifty. There are two vertical bars for each fiscal year, one of which shows ESI R01 applications and the other of which shows ESI R01 awards in that year. Number of ESI applications ranged between about three hundred to nearly four hundred during these years; number of awards ranged from about fifty to about eighty.

FIGURE 12: PRESERVING A STABLE POOL OF NEW INVESTIGATORS—PERCENT OF NIDDK NEW INVESTIGATOR APPLICATIONS SUBMITTED AND AWARDS RECEIVED BY EARLY STAGE INVESTIGATORS (ESI)

This is a vertical bar chart whose x-axis shows fiscal years between 2010 and 2017 in increments of one year. The y-axis displays percentages from zero to eighty percent in increments of ten percent. There are two vertical bars for each fiscal year, one of which shows ESI R01 applications and the other of which shows ESI R01 awards in that year, as a percentage of New Investigator applications or awards. There has been an increase in the percentage of New Investigator applications submitted by ESIs (from approximately forty-three percent in fiscal year 2010 to forty-eight percent in fiscal year 2017). The ESI differential payline instituted in 2012 has increased the number of awards to ESIs, so that about sixty eight percent of awards to New Investigators are awarded to ESIs; the percentage of New Investigator awards going to ESIs increased from approximately forty-four percent in fiscal year 2010 to sixty-nine percent in fiscal year 2017.

FIGURE 13: MEDIAN AND MEAN AGES OF NIDDK R01 AND R37 INVESTIGATORS

This is a line chart whose x-axis shows fiscal years between 2007 and 2016 in increments of one year. The y-axis displays the age of investigators from fifty years to fifty-five years in increments of one year. There are two lines on the chart. The top line shows the mean age of investigators and rises from just under fifty-two years in fiscal year 2007 to just over fifty-three years in fiscal year 2017. The lower line shows the median age of investigators. The median age of investigators from fiscal year 2007 through 2012 was fifty-one years. The median age then rose to fifty-two years in fiscal year 2013 and has remained at this level through fiscal year 2017.

FIGURE 14: SUPPORT PIVOTAL CLINICAL STUDIES AND TRIALS—NIDDK HUMAN SUBJECTS RESEARCH FUNDING AS A PROPORTION OF ALL EXTRAMURAL RESEARCH FUNDING

This is a vertical bar chart whose x-axis shows fiscal years between 2008 and 2017 in increments of one year. The y-axis displays percentages from zero percent to forty five percent in increments of five percent. There are two vertical bars for each fiscal year. The left bar of each fiscal year pair displays the percent of the NIDDK extramural research budget that supports human subjects research for all NIDDK extramural research awards. The right bar of each fiscal year pair displays the percent of the NIDDK extramural research budget that supports human subjects research for only NIDDK R01 and R37 awards. The percentage of NIDDK extramural budget supporting human subjects research for all NIDDK extramural research awards remained fairly stable at about thirty percent from fiscal years 2008 through 2010, but then climbed from fiscal year 2011 through 2014 to nearly forty percent, remained little changed in fiscal years 2015 and 2016, and rose to forty-one percent in 2017. The percentage of the NIDDK extramural budget supporting human subjects research for NIDDK R01 and R37 awards climbed somewhat more consistently and rose from approximately twenty-six percent in fiscal year 2008 to thirty-seven percent in fiscal year 2017.

Figure 15: NIDDK Is Committed to Training the Next Generation of Scientists

FIGURE 15A: NIDDK FELLOWSHIP (F), CAREER DEVELOPMENT (K), AND TRAINING (T) AWARDS AS A PERCENT OF TOTAL EXTRAMURAL RESEARCH FUNDING

This is a line chart whose x-axis displays fiscal years from 2008 to 2017 in one year increments. The y-axis shows percentages from zero to six percent. There are three lines on the chart, which display (from top to bottom): 1) K awards—accounted for approximately five percent of extramural funding between fiscal years 2008 and 2017 with levels fluctuating only modestly until fiscal year 2017 when K awards decreased to 4.4 percent of total funding; 2) T awards—T awards remained about 3.4 percent of extramural funding until 2010 when they decreased slightly to about 3.1 percent of the research budget through fiscal year 2015, then dropped to 2.8 percent in fiscal year 2017; and 3) F awards—these have increased steadily from 0.4 percent of the research budget in 2007 to just under one percent in 2017.

FIGURE 15B: NUMBERS OF NIDDK FELLOWSHIP (F), CAREER DEVELOPMENT (K), AND TRAINING (T) AWARDS BY FISCAL YEAR

This is a line chart whose x-axis displays fiscal years from 2008 to 2017 in one year increments. The y-axis shows numbers from zero to seven hundred in increments of one hundred. There are three lines on the chart, which display (from top to bottom): 1) K awards—there were about five hundred fifty K awards in 2008, this number increased to about six hundred in 2009 but then declined to about five hundred in 2011, fluctuated slightly from year to year until fiscal year 2015, and then declined to about four hundred fifty awards in fiscal year 2017; 2) T awards—the number of T awards fluctuated slightly between approximately two hundred forty and two hundred fifty between fiscal years 2008 and 2012, the numbers then dipped to about two hundred fifteen in 2013 to 2016, and rose back up to about two hundred fifty in 2017; 3) F awards—these have increased from two hundred seven awards in fiscal year 2008 to three hundred fourteen awards in fiscal year 2016.

FIGURE 15C: NUMBER OF NIDDK CAREER DEVELOPMENT (K) AWARDS BY ACTIVITY AND FISCAL YEAR

This is a line chart whose x-axis displays fiscal years from 2008 through 2017 in increments of one year. The y-axis displays numbers of awards from zero to three hundred in increments of fifty, and includes both competing and non-competing awards. There are five lines, from top to bottom: 1) K08—this line starts at one hundred eighty-seven in 2008, rises to over two hundred in 2009, then generally declines to about one hundred sixteen in 2017; 2) K01—this line starts at about one hundred sixty in 2008, increases to about one hundred eighty in 2009; following a brief decline between 2010-2012 the number rose again to nearly two hundred in 2015 before declining again in 2017 to about one hundred sixty; 3) K23—this line starts at about one hundred ten in 2008 and increases to about one hundred thirty in 2009; it then generally remains at this level through 2017; 4) K24—this line remains generally stable at around fifty awards until 2012; since that time it has declined to about thirty-five through 2016 and declined to twenty six in 2017; 5) K99—this line starts at about 27 awards in 2008 and 2009, then declines to around twenty from 2010 to 2015; there were sixteen K99 awards in 2016 and 2017.

FIGURE 15D: NUMBER OF NIDDK CAREER DEVELOPMENT (K) APPLICATIONS BY ACTIVITY AND FISCAL YEAR

This is a line chart whose x-axis displays fiscal years from 2008 through 2017 in increments of one year. The y-axis displays numbers of competing applications from zero to three hundred in increments of fifty. There are five lines, from top to bottom: 1) K01—this line starts at about ninety-four applications in 2008, decreases to eighty-four in 2009; then rises to one hundred ten in 2010, rises gradually to about one hundred thirty in 2014, then remains generally around one hundred twenty until 2017; 2) K08—this line starts at seventy-eight applications in 2008, remains relatively constant through 2012, then declines to fifty six in 2013, then generally remains at this level through 2017; 3) K23—this line starts at about eighty applications in 2008 and remains generally at about that level, except for a peak to ninety-four in 2011; 4) K24—this line remains generally stable at around seventeen applications through 2017, except for a rise in 2011 and 2012 to about 24 applications; 5) K99—this line starts at about thirty-two

applications in 2008 and rises to a peak of seventy-one applications in 2013, followed by a decline to thirty-four applications in 2015; K99 applications held constant at 44 in fiscal years 2016 and 2017.

FIGURE 15E: NUMBER OF NIDDK TRAINING (T32) AWARD SLOTS BY FISCAL YEAR

This is a vertical bar chart whose x-axis displays fiscal years from 2007 to 2016 in increments of one year. The y-axis shows the number of T32 slots from zero to one thousand in increments of two hundred. There is one vertical bar for each fiscal year. From fiscal year 2007 to 2012 the number of T32 trainee slots remained stable at about nine hundred per year. However, since 2013 the number of slots has declined to about eight hundred.