

# Sources for population estimates

[Original article](#)

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*All numbers are in millions. All figures are approximate. Estimates are annual, and are generally based on tax year 2018, but figures are sourced from tax years 2016-2019, based on data availability. With year-over-year population change in the vicinity of 0.5%, year-to-year differences are small, especially in the face of much larger uncertainty over some estimates.*

## 1. FILERS

### 1A. Filer overall eligibility

	Number of adult taxpayers (not including any dependents claimed on return)	Returns Filed
<b>Totalz</b>	<b>215</b>	<b>155</b>
<i>Ineligible for relief payment</i>	31	25
Earned too much <sup>3</sup>	16	10
Filed with ITIN <sup>4</sup>	7	5
Filer of record is a dependents	8	10
<i>Eligible</i>	<i>184</i>	<i>130</i>

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<sup>2</sup> Based on [IRS 2016 gross annual income data](#) accessed on [IRS SOI website](#) under “Individual Income and Tax Data.”

<sup>3</sup> Based on CARES Act text and on [IRS 2016 gross annual income data](#) accessed on [IRS SOI website](#) under “Individual Income and Tax Data.” 150 M returns total; 54M joint returns of which 6M, or 11%, are above income limit; 71M single returns of which 3.6M, or 5%, are above limit; 22M head of household returns of which 450K, or 2%, are above income limit. Data is from 2016 so figures are rounded up.

<sup>4</sup> [Taxpayer Advocate 2015 Report to Congress](#): 4.6M returns filed with ITIN annually.

<sup>5</sup> 9.6 million returns were filed by dependents in 2017 ([IRS SOI statistics](#)). Some of these will be children, so it reflects more returns than it does adult taxpayers. Note that there are of course many more dependents than there are returns filed by dependents, since not all dependents file their own returns. This line is included to yield the correct number of valid returns. The portion of dependents who are adults is an estimate.

## 1B. Filer direct deposit details<sup>6</sup>

	Returns
<b>Total</b>	155
<i>Received refund</i>	112
Via direct deposit <sup>7</sup>	92
To a RAC or other temporary accounts <sup>8</sup>	21
To an otherwise outdated accounts <sup>9</sup>	11
To a usable account <sup>10</sup>	60
Via check	20
<i>Owed money</i>	43
Paid via direct deposit information from a usable account <sup>11</sup>	18
Paid via other means <sup>12</sup>	25
<b>Total with usable direct deposit</b>	<b>(~50%) 78</b>
<b>Total without usable direct deposit</b>	<b>(~50%) 77</b>

## 1C. Filer timing

	Returns
<b>Total</b>	<b>155</b>
Filed by March 20 <sup>13</sup>	(54%) 84

<sup>6</sup> Except where otherwise stated, this table is based on [IRS 2018 filing data](#).

<sup>7</sup> The statistic that 8 in 10 filers use direct deposit is frequently cited, [including by IRS](#). The confusion is that this statistic applies to those receiving a refund, which is only about 72% of all filers.

<sup>8</sup> [Aaron Klein, Brookings](#).

<sup>9</sup> This is an estimate.

<sup>10</sup> Remainder.

<sup>11</sup> This is an estimate..

<sup>12</sup> Remainder.

<sup>13</sup> [IRS Filing Season Statistics](#). March 20 is the date Tax Day was moved to July, meaning all filing behavior since is likely to have changed, and could have been influenced by rumors about oncoming relief payments. But, this is a conservative estimate: the number who are locked into 2019 decisions is likely still higher than reported here, due to returns filed with incomplete information in the last three weeks.

## 1D. Summary of filers

*This table assumes the fraction of taxpayers using direct deposit and filing early in 2020 are consistent across all relevant subpopulations. This is not a great assumption — probably, for example, poorer people who are more likely to be eligible or less likely to use direct deposit — but it is not obvious which direction the bias would run.*

	Number of adults	Returns
<b>Eligible</b>	<b>184</b>	<b>130</b>
With direct deposit	(50%) 92	(50%) 65
Without direct deposit	(50%) 92	(50%) 65
Have already filed 2019	(54%) 50	(54%) 35

## 2. NON-FILERS

	Returns
<b>Total<sup>14 15</sup></b>	<b>32</b>
Social Security recipients <sup>16</sup>	17
SSI / Veterans Benefits recipients <sup>17</sup>	3
Undocumented immigrants <sup>18</sup>	3
Other, below threshold <sup>19</sup>	6
Other, above threshold	3

<sup>14</sup> Most figures in this table are adapted from [Cilke \(2011\)](#), who creates a dataset of non-filers by comparing IRS information returns (e.g. W-2s, 1099s) with filed returns (i.e. 1040s). The resulting dataset is shown to be extremely accurate to observed population gaps between tax filers and Census-counted population.

<sup>15</sup> [Cilke \(2011\)](#) reports 30.2 million non-filers in tax year 2010. Scaled by a 5% increase in population since 2010, this corresponds to 31.7 million. His estimates do not include those not touched by the federal tax system, which he reports is estimated at 0.5% of the adult population, which would be 1.2 million. Being conservative, we simply round up to 32 million.

<sup>16</sup> [Cilke \(2011\)](#), reporting 56% of non-filers report Social Security income. This is also consistent with [CBPP](#), reporting over 15 million such individuals in 2008.

<sup>17</sup> 3 million estimate is reported by [CBPP](#) and [Democratic Senators](#). Is roughly consistent with SSA data [showing that 3.5 million SSI recipients do not receive Social Security](#).

<sup>18</sup> Estimate based on: (1) [10.5 million undocumented immigrant adults](#) in total, (2) [50-75% of undocumented immigrants pay income tax](#) with an ITIN or an incorrect SSN. Immigrants are not explicitly broken out in Cilke's data.

<sup>19</sup> Estimate based on [Cilke \(2011\)](#), reporting 40% of non-filer wage earners are above the threshold. But, not all the remaining 9 million non-filers will be wage earners; only 25% of Cilke's sample overall has earned income, and among the specific subset of interest here, it is what unclear what portion have earned income. If anything, it is likely that 3 million above the threshold is an overestimate.

### **3. ALL ADULTS**

	Number of adults
Eligible filers (not including dependents claimed)	184
Ineligible filers (not including dependents)	23
Eligible non-filers	29
Ineligible non-filers	3
Ineligible dependent adults <sup>20</sup>	20
<b>Total</b>	<b>259</b>

<sup>20</sup> Dependents in a sense are neither filers nor non-filers; they do not necessarily file their own returns, but they *are* reflected on returns, and so are not included in counts of non-filers. 15-25 million adult dependents is consistent with the gap between adults accounted for in earlier rows and the total adult population. Moreover, this number is consistent with there being 17 million undergraduate students ([Census](#)), many of whom are adult dependents, and who in turn comprise a large portion of adult dependents.