Economic Security Project

The Impact of Direct File — by the Numbers

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The IRS's Direct File program offers free, simplified online tax filing, saving Americans $11B annually and potentially delivering $12B more in currently unclaimed tax credits for low-income families.

Direct File is the Internal Revenue Service's revolutionary new project to provide free, simplified, public online tax filing for the first time in U.S. history. The program launched in 2024 with a pilot program that is intentionally restricted in scope to a small share of the taxpayers that could ultimately benefit from the service. At scale, its potential benefits for American taxpayers are extraordinarily large. A public option for tax filing, Direct File can make the tax preparation market more equitable, inclusive, and competitive.

This report is the first to estimate the total financial benefits of the Direct File program for American taxpayers. **It finds that, at maturity in five years, Direct File would save the average user $160 in filing fees and hours of their time each year, which saves Americans a total of $11 billion annually between filing fees and time costs. By breaking down barriers to filing, Direct File would also deliver up to $12 billion each year in additional tax credits to low-income families currently missing out.** Appendix A breaks down the projected taxpayer savings and impact by state.

These savings represent an enormous return on investment given the small net cost of the program. **For every dollar invested in the program, Direct File delivers $106 in benefits to American taxpayers, between savings on tax preparation fees and access to untapped tax credits.**[2] Few programs deliver this kind of bargain.

Specifically, Direct File would deliver two types of benefits to taxpayers:

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[2] This report considers only federal costs and federal benefits delivered. Incorporating state costs and state benefits delivered would amend the numbers only slightly. See Section 4 for more detail.

1. **Saving tax preparation costs and time for existing filers.** Direct File could save existing tax filers $8 billion in filing fees and an additional $3 billion in time costs.[3] In addition, it could spare more than 400,000 filers a year from the stress of IRS correction proceedings and audits. This does not even consider additional gains to these taxpayers in terms of increased privacy and not having their data sold to third parties.

2. **Closing the tax credit uptake gap.** Direct File could meaningfully close the long-standing refundable credits coverage gap — tax benefits like the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC) that low-income households are entitled to but do not claim. In total, Direct File could deliver $5-12 billion in federal refunds per year to families who currently do not file returns. If EITC and CTC expansions from the American Rescue Plan were re-enacted, this figure would increase to $19-47 billion per year. These estimates do not consider additional federal credits, or additional benefits from state credits and refunds that currently go unclaimed.

On top of these savings to taxpayers, Direct File also saves the federal government money in several ways. Even under very conservative assumptions, Direct File could achieve savings of nearly $300 million across the IRS by reducing costs associated with handling paper filings and resolving errors, among other things — reducing the net cost of the program by over 60%.

The above estimates assume widespread taxpayer adoption, but the incredible return on investment does not rely on such broad adoption. Even if take-up from existing taxpayers were less than half what we estimate here, the return on investment would remain over $100 per federal dollar spent.

High-level assumptions

In this report, we model the impact of Direct File at maturity, which we estimate could come by the 2029 filing season. At maturity, we assume:

- ➔ **Functionality and scope:** Direct File's tax scope will match that of the IRS Free File program (meaning it will support the tax situations of about two-thirds of American taxpayers),[4] though Direct File could reach 10 times the number of people that take

[3] This is just the time cost savings of preparing a return; this does not take into account the time cost savings from avoided error proceedings.
[4] Free File limits taxpayer eligibility based on income; Direct File in 2024 does not have income limits other than scope limits, and per the report to Congress has no intention to impose them. This means that, at Free File's tax scope, slightly more taxpayers would be eligible for Direct File than are eligible for Free File. For simplicity, we ignore this gap and assume the number of users eligible for Direct File is 100 million.

advantage of the little-used IRS Free File program, as explained in the next points. Moreover, significant income prepopulation[5] and data automation will make Direct File an unprecedentedly streamlined filing process. We conservatively estimate completing Direct File will take an average of one hour.[6]

- ➔ **Adoption by current filers:** Consistent with widespread taxpayer interest in switching to Direct File in repeated surveys, 50 million *existing* tax filers will use Direct File every year.[7] This would represent about one-third of all filers, and half the Free File-eligible population. As a lower-bound estimate, we also estimate the impact of just 20 million filers switching to Direct File.

- ➔ **Non-filer uptake:** Additionally, for reasons outlined in Section 2, 70% of households currently in the refundable credits non-filer gap (those who don't currently file taxes but qualify for credits) will use Direct File, bringing total usage up to about 55 million under current law.

- ➔ **State integration:** Direct File will be available with integrated state filing in every state.[8]

Estimated Impact of Direct File at Scale

1. Savings for existing filers

MITRE's 2019 Free File report provides detail on the filing habits of the Free File-eligible population. We assume, for simplicity, that filers converting to Direct File are equally drawn from all methods of status quo filing.[9] Table 1 shows the taxpayer savings by status quo

[5] While prepopulation and automation is not in scope during the 2024 pilot year, we believe such functionality is on the horizon for Direct File, given the IRS's stated intentions to streamline taxpayer access to their own data, and documented taxpayer expectations that Direct File will provide that functionality.

[6] This is far from unrealistic in international perspective. Deloitte research identifies 8 OECD countries with returns that take less than an hour. Estonia's online tax filing system famously takes about five minutes. Anecdotal evidence from early Direct File returns in 2024 show users reporting filing in less than half an hour even without any prepopulation or automation functionality.

[7] This estimate is conservative in light of existing research. The IRS Direct File report to Congress showed that 24% of taxpayers were very likely and 44% somewhat likely to convert to Direct File. If 80% of the "very likely" and 40% of the "somewhat likely" converted, that would equate to 36.8% of taxpayers, or 55.2 million taxpayers. GQR polling in February 2024 found even higher interest, with 40-50% of respondents in each state "very likely" and 30-40% likely to use the tool. Assuming 80% of very likely and 40% of somewhat likely taxpayers convert, 50% of taxpayers, or 75 million, would use Direct File. Such use is also consistent with international experience. In Germany, for example 31.6 million tax units filed returns with the government-run tool ELSTER in 2021, out of 42.6 million returns total — a rate of 74%.

[8] It is possible some states decline to participate, despite the benefits for their residents.

[9] On one hand, we might assume online filers — and perhaps those already using free versions of the software — would be more likely to switch to Direct File, which might be similar to what they are used to. On the other hand, taxpayers using paid preparers (or expensive editions of online software)

filing method. With $8 billion in savings for 50 million filers, the average filer saves $160 in preparation fees.[10]

Table 1. Cost savings for existing tax filers

	Status quo		Converted to Direct File (assuming 50 million converts)		Converted to Direct File (assuming 20 million converts)	
	Number of filers	**Cost per return**	**Number of filers**	**Cost savings**	**Number of filers**	**Cost savings**
Paid preparer	50 million	$250[11]	25 million	$6.25 billion	10 million	$2.5 billion
Online self-prep	36 million[12]	$100[13]	18 million	$1.8 billion	7.2 million	$720 million
Paper[14]	8.4 million	$0	4.2 million	$0	1.7 million	$0
Free File	2.6 million	$0	1.3 million	$0	0.5 million	$0
VITA/TCE	3.0 million	$0	1.5 million	$0	0.6 million	$0
Total			**50 million**	**$8 billion**	**20 million**	**$3.2 billion**

Time savings: IRS 1040 instructions indicate a return may take, on average, nine hours to complete. Countries with prepopulated forms, according to Deloitte research, commonly see return completion times under one hour. (The same research puts U.S. returns in the "2-5 hours" category.) Conservatively, we assume the average convert to Direct File with

have the most to gain by switching to Direct File and are most likely to want to make the switch. Assuming a flat conversion rate across methods is a compromise between these two countervailing effects.

[10] This estimate is consistent with the IRS 1040 instructions, which estimate $150 to file a return.

[11] Intuit reports $238 for a basic return from a paid preparer. Schneider and Harknett show empirical costs of $133, $242, $259, and $594. Weinstein and Patten find that H&R and Jackson Hewitt report averages of $147 and $191 in 2016, while empirical data in DC shows prices at $309, $375, and $509. NBC, citing the National Association of Tax Professionals, reports $248. $250 appears to be a reasonable conservative estimate.

[12] Consists of 26.7 million filers in the online self-prep category and 9.4% million in the self-preparation with RAC/RAL category. MITRE reports that 15.8 million of the 26.7 million did not pay for the self-prep services. We treat all of these subcategories as one bucket, including RAC/RAL.

[13] Schneider and Harknett report $89 for H&R Block, $92 for TurboTax, $259 for Jackson Hewitt, and $400 for Taxact. (It is unclear if free editions are priced into the averages or not. If they are not, this number would decrease slightly.) Consistent with this estimate, TurboTax's pricing page currently suggests $0-120 for common simple federal cases, plus $40 for state returns.

[14] On one hand, opponents may argue that paper filers are less likely to convert. On the other hand, many paper filers may be using paper because they do not have another non-private option. Indeed, the NTA argues that providing Direct File is the best way to convert paper filers. Some paper returns are also induced by e-file errors that could be averted with more automation and streamlining.

automation saves four hours on filing.[15] **At $15/hour, that is a total time cost of $3 billion assuming 50 million filers convert**, and $1.2 billion assuming 20 million filers convert.

Increased (or decreased) refunds: We do not assume that the average refund amount claimed will change under Direct File.[16]

Sparing filers from onerous correction proceedings: The decrease in errors as a result of prepopulation will spare many Direct File users from audits, corrections, and deficiency proceedings. Appendix B explores three common categories of correction proceedings and estimates **419,000 taxpayers could be spared from these proceedings each year, including 35,000 avoided EITC audits**.[17, 18]

2. Facilitating tax filing for otherwise non-filers

Despite decades of efforts to close it, the EITC coverage gap has remained stubbornly large, with as many as 1 in 5 eligible taxpayers not receiving the credit. During the pandemic, when tax benefits temporarily expanded for very-low-income households, the gap ballooned still further, exacerbating existing racial inequities. A wealth of research suggests that **Direct File could help millions of low-income households claim their tax credits by providing a free and simplified tax filing option**. Consider:

- ➔ In 2020, California Policy Lab found that a series of EITC outreach efforts had no impact on EITC claim rates, and speculated that outreach without a single, clear, accessible front door to the tax system was not effective.
- ➔ In 2021, CPL repeated this experiment, this time promoting GetCTC, a filing tool that was free and streamlined: it did not require taxpayers to report their income. This time, outreach *did* have a significant impact on claim rates.
- ➔ Code for America further found, in a series of experiments using GetCTC, that taxpayers who traditionally do not file returns were able to complete a tax return at

[15] We do not estimate different times to file based on the filing method. While, on one hand, paid preparers can save time since the taxpayer does not prepare the return, on the other hand there is — in most cases — the time cost of gathering documents and traveling to a location.
[16] Direct File's design makes very clear the IRS intends to ensure taxpayers claim every credit and deduction they are eligible for. Direct File may change individual refund amounts by decreasing errors, especially from paid preparers, but given that paid preparers' returns are often incorrect in both directions, we estimate that there will be little to no change in the average size of refunds.
[17] This is to say nothing of downstream effects, like 26 USC 32(k) and 24(g) bans that can improperly cause EITC- and CTC-eligible taxpayers to have their credits disallowed for many years.
[18] It is worth noting that in some cases the IRS makes corrections based on erroneous data; in these cases prepopulation would not entirely waive costs associated with IRS data being incorrect. But by surfacing the issue prior to filing and allowing the taxpayer to flag the discrepancy sooner, Direct File provides an ancillary benefit to the taxpayer of accelerating the resolution process, and likely lowering the costs to the IRS regardless.

drastically higher rates when they did not have to report income information, and that they specifically struggled with transcribing their W-2s.

- ➔ Code for America also found that outreach was by far most effective when it promoted a single, actionable link where taxpayers can file their taxes. In the absence of a public tax filing tool, the government is not able to perform such focused outreach because the government cannot promote a single private tool above others.

- ➔ Volunteer Income Tax Assistance (VITA) sites — community organizations that prepare low-income filers' returns for them, for free, with IRS funding — have long been one of the most powerful tools to reach taxpayers in need. But VITA's capacity is limited at only a few million returns a year. In the absence of a reliable free self-help option, VITA tends to serve every eligible taxpayer who comes in the door, even those taxpayers who would be happy using a self-help tool, rather than focusing on those taxpayers who most need hands-on assistance.

- ➔ Research by New America found that some very low-income non-filers feel they have little to gain from filing a return (minimal EITC and minimal withholding), and that the cost and headache of the process are not worth the reward.

Direct File can fix these systemic issues:

- ➔ Through prepopulation and automation, it can remove the most serious logistical barrier to filing a return for traditional non-filers: requiring filers to report their income information, even though the IRS already has it.

- ➔ It eliminates filing costs and improves the cost-benefit calculus for very low-income taxpayers who cannot afford filing fees.

- ➔ It allows government outreach to promote a single, actionable link, making that outreach far more effective.

- ➔ It can act as an escape valve for some VITA taxpayers, allowing VITA to double down on its efforts to serve the hardest-to-serve taxpayers, closing the gap further.

We estimate Direct File and associated efforts can close 80% of the refundable credits coverage gap — 70% through directly serving non-filers, and 10% through redirected capacity freed up in VITA and other programs. How big is the current gap? Appendix C contains a detailed treatment of the size of the tax benefits coverage gap for EITC, CTC, and excess withholding. The outcome of these estimates is shown below. Due to the significant uncertainty over the size of the refundable credits coverage gap, we provide both lower and upper bound estimates. We also show estimates both for current law and for the case where

American Rescue Plan EITC and CTC expansions — both still strongly supported by large portions of Congress — become law again, since these changes drastically expand the size of benefits for lower-income filers, and, in turn, the coverage gap. **We find that under current law, more accessible tax filing through Direct File could put $4.6 billion to $11.8 billion more a year into the pockets of low-income families.**

Table 2. Tax benefits coverage gap and Direct File impact

	Current law		**ARP expansions**	
	Low estimate	**High estimate**	**Low estimate**	**High estimate**
EITC	$3.6 billion	$10 billion	$7.2 billion	$13.2 billion
CTC	$800 million	$2.9 billion	$14.7 billion	$44.2 billion
Excess withholding	$1.3 billion	$1.8 billion	$1.3 billion	$1.8 billion
Total size of status quo gap	**$5.7 billion**	**$14.7 billion**	**$23.2 billion**	**$59.2 billion**
Closed by Direct File	**$4.6 billion**	**$11.8 billion**	**$18.6 billion**	**$47.4 billion**

3. Savings to the federal government

Direct File can generate savings throughout the IRS. Table 3 offers just a few examples[19] of where these savings are found, and is calculated using conservative assumptions.

Table 3. IRS savings due to Direct File (all figures in millions of dollars)

		Status quo and costs	Savings
Customer service		The IRS fields around 100 million phone calls every year (Table 9 of the 2022 Data Book). It has been reported each phone call costs the agency $41. Assume conservatively that this applies to the 35 million answered phone calls, yielding a $1.4 billion budget.[20] Assume, *very* conservatively, that Direct File: (1) prevents 5% of phone calls because they reflected tax law questions the Direct File software answered, (2) prevents 5% of phone calls because, by connecting the taxpayer to online IRS systems, it helps them determine their refund status online without having to call, (3) prevents 5% of phone calls because the question is instead answered by Direct File customer service. 15% savings on a $1.4 billion budget yields $215 million.	$215
Other than cust. service	**Paper filing**	$7.05 processing savings[21] per return for 4.2 million returns (Sec 1).	$29.6
	Error resolution (Savings may accrue across other lines as well)	*Automated Underreporter Program*. 1/6 reduction in total AUR cases (Appendix B) on a $175 million total budget.[22]	$29
		Math Error. 1/10 reduction in total cases (Appendix B) on an estimated $35 million total budget.[23]	$3.5
		EITC audits. 1/8 reduction in total cases (Appendix B) on an estimated $26.6 million budget.[24]	$3.3
	VITA software	The IRS spends $5.3 million annually on private tax software to run VITA sites. When Direct File is mature, VITA sites should be able to use Direct File as their tax software.	$5.3
	Total, non-customer service		**$70.7**
Grand Total			**$285.7**

[19] Other examples include: $2 million spent on the CP-09/CP-27 program, which would be vastly reduced if taxpayers properly claim EITC using Direct File in the first place; as well as program costs spent on the Free File Alliance, which will likely continue shrinking as Direct File expands.
[20] SOI Table 32 meanwhile identifies 14,933 FTE as CSRs. In 2022, the IRS spent $9.79 billion (SOI Table 30) on 79,000 FTE (SOI Table 32), for an average of $123,924 per FTE. 14,933 FTE on average costs $1.85 billion, which validates that $1.4 billion is the right order of magnitude.
[21] Per NTA, it costs $7.05 more to process a paper than an electronic return.
[22] Per SOI Table 22, the AUR program costs 1,300 FTE. Using $123,924 per FTE (see Footnote 20), this puts the budget of AUR at $161 million in personnel costs alone. We assume the overall cost including mailings and other costs is $175 million.
[23] SOI does not provide figures for the budget of the math error program. It serves a similar scale of number of cases as AUR; AUR 1.6 million cases, and math error 1.2 million (SOI Table 23). If math error, which is simpler, were to cost 20% of the cost of running AUR, it would cost $35 million. Direct File, as noted in Appendix B, should have a smaller impact on math error than on AUR.
[24] IRS audits 280,000 EITC returns per year, spending 1.6 audit hours per return, This equates to 215 annual FTE, or, at the $123,924 average per FTE, $26.6 million.

4. Direct File costs and cost-benefit

The IRS Direct File report to Congress estimates Direct File costs for multiple numbers of users and for two different software scope options ("narrow" and "broader"). Table 4 interpolates the costs to a tool of Free File's scope, and extrapolates those costs to 55 million users, as per Sections 1 and 2.

Table 4. Costs of running Direct File (all costs in millions of dollars)

Direct File Usage and Scope Assumptions		Tech cost	Customer service cost	Total cost
25 million users	"Narrow scope" (VITA)[25]	$30.7	$190.6	$221.3
	Free File scope *(interpolated)*[26]	$32.7	$194.1	$226.8
	"Broader scope"[27]	$40.8	$208.1	$248.9
55 million users[28] *(extrapolated)*[29]	"Narrow scope" (VITA)	$41.1	$415.6	$456.7
	Free File scope *(interpolated)*	$43.2	$423.3	$466.5
	"Broader scope"	$51.4	$454.1	$505.5

In every scenario, the $70.7 million in Direct File non-customer-service savings from Section 3 dwarf the technology cost of building and maintaining Direct File, by nearly a factor of two. **Overall, the cost savings to the federal government cover 61% of the cost of running Direct File.**

[25] The Direct File report to Congress defines its narrow scope as that of the VITA program, which is described in Publication 4012.
[26] Free File's core scope is 30 tax forms. Of these forms, VITA does not support two of them (4684, 8829) and has limited support for another eight (including, e.g., Schedule C and E). Counting limited support as half support, VITA supports 24 tax forms. The Direct File report does not specify what an expansive scope is, but Free File Fillable Forms supports on the order of 125 forms. While acknowledging not all forms are created equal, a form-counting methodology would put Free File's complexity at 6% of the way from VITA's to Fillable Forms's. Estimating more conservatively, we put Free File's complexity at 20% of the way between VITA and Fillable Forms.
[27] The Direct File report to Congress does not specify what the "broader scope" entails, but implies it would encompass many of the provisions available to taxpayers.
[28] Based on 50 million Free File-eligible current-filer adoptees, and 5 million non-filer adoptees.
[29] The Direct File report provides estimates at 5, 10, and 25 million users (and also notes that these should not serve as estimates of how many taxpayers might use Direct File). The cost increases from 5 to 10 million and from 10 to 25 million are essentially linear in number of users. We linearly extrapolate to 55 million using the per-user increase in the 10-25 window.

Table 5 shows these numbers in terms of ROI. At 55 million users, every dollar spent on Direct File puts $106.19 back in taxpayers' pockets, through filing cost savings and increased credit uptake (Column 2).

Note, though, that this high ROI does not rely on optimistic adoption rates. In fact, since the average benefit to a non-filer is larger than the average benefit to an existing filer, the ROI is higher at *lower* conversion rates. At 25 million users, every dollar spent on Direct File delivers $130.03 in benefit to taxpayers (Column 1).[30]

The estimates are also highly sensitive to cost savings estimates from Section 3. If, rather than eliminating 15% of taxpayer phone calls, Direct File eliminated 28.3% of calls, the Direct File program would immediately pay for itself (Column 3).

Table 5. Cost-benefit of running Direct File

		Using IRS savings as estimated in Section 3		**Inflating Section 3 estimates to 28.3% customer service savings on phones**
		25 million users[31]	**55 million users**	**55 million users**
		(1)	**(2)**	**(3)**
Costs	Technology cost	$32.7 million	$43.2 million	$43.2 million
	Customer service cost	$194.1 million	$423.3 million	$423.3 million
	Gross cost	$226.8 million	$466.5 million	$466.5 million
	IRS savings from Section 3[32]	$129.9 million	$285.7 million	$466.9 million
	Net cost after savings	**$96.9 million**	**$180.8 million**	**$0**
Benefits	Filer savings from Section 1	$4.4 billion	$11 billion	$11 billion
	Credit gap closed from Sec 2 *(mean, current law)*	$8.2 billion	$8.2 billion	$8.2 billion
	Total benefit to taxpayers	**$12.6 billion**	**$19.2 billion**	**$19.2 billion**
Total ROI *Total benefit to taxpayers for every federal dollar invested in Direct File*		***$130.03***	***$106.19***	***Inf.***

[30] Even the ROI looking only at taxpayer savings from Section 1 is staggering. For every federal dollar spent, taxpayers save $60.84 on filing costs in Column (2).
[31] Assumes 20 million Free File adoptees and the same 5 million non-filer adoptees.
[32] Column (1) is scaled down linearly from 55 million to 25 million since cost savings are predominantly per unit. Some lines may not achieve savings at lower scales, but others (e.g. VITA software) will achieve full savings despite lower usage.

This report does not take into account costs incurred by states running integrated state filing software, or, conversely, additional benefits accrued to state filers. The 2024 experience does not suggest the state filing technology costs will meaningfully alter this picture. Massachusetts is integrating with Direct File largely under its existing contract to provide tax filing services; and many other states, like Massachusetts, already provide direct filing services. Arizona and New York rolled out a new product for state filing working with a small team on a short timeline. While state considerations will increase the price tag and the benefits accrued, they do not change the overall story. As in the case of the federal tool, we expect benefits in each state to far outweigh the costs.

Appendix A: Impact by State in 2029

We assume that usage in each state will be proportionate to the state's total population. In practice, usage will likely be relatively higher in states with more outreach and in states with more Free File-eligible taxpayers. Columns (1) and (2) are the fee and time savings estimated in Section 1. Columns (3)-(7) are the additional tax credits claimed, as estimated in Section 2. Column (8) shows the total benefit to the state, using the mean of current-law low and high estimates from Column (5).

The table can be read as saying, for example:

- ➔ Direct File could save Georgia taxpayers $261.9 million in filing fees every year.
- ➔ Direct File could deliver $63.4-162.5 million in additional federal tax credits to taxpayers in Louisiana every year.
- ➔ Direct File could deliver $597 million-$1.52 billion in additional federal tax credits to taxpayers in North Carolina every year, if ARP expansions were made permanent.
- ➔ Direct File could deliver $2.25 billion in total value to California taxpayers, between filing fees, time cost of filing, and additional federal credits claimed.

(All figures in millions of dollars)

	Filing fees	**Time cost of filing**	**Credit coverage gap closed**					**Total gain to state** (using mean current law estimate)
			Current law			**ARP expansion**		
			Low est.	**High est.**	**Mean**	**Low est.**	**High est.**	
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Alabama	121.8	45.7	70	179.7	124.9	283.2	721.7	292.4
Alaska	17.6	6.6	10.1	26	18.1	40.9	104.3	42.3
Arizona	176.6	66.2	101.6	260.6	181.1	410.7	1046.6	423.9
Arkansas	73.1	27.4	42	107.8	74.9	170	433.1	175.4
California	936.8	351.3	538.7	1381.8	960.3	2178.1	5550.7	2248.4
Colorado	140.2	52.6	80.6	206.8	143.7	325.9	830.6	336.5
Connecticut	87	32.6	50	128.4	89.2	202.4	515.7	208.8
Delaware	24.4	9.2	14.1	36.1	25.1	56.8	144.8	58.7

	Filing fees	Time cost of filing	Credit coverage gap closed					Total gain to state (using mean current law estimate)
			Current law			ARP expansion		
			Low est.	High est.	Mean	Low est.	High est.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
DC	16.1	6	9.3	23.8	16.6	37.5	95.5	38.7
Florida	533.9	200.2	307	787.6	547.3	1241.4	3163.6	1281.4
Georgia	261.9	98.2	150.6	386.4	268.5	609	1552	628.6
Hawaii	34.6	13	19.9	51	35.5	80.4	204.8	83.1
Idaho	46.5	17.5	26.8	68.7	47.8	108.2	275.8	111.8
Illinois	302	113.3	173.7	445.5	309.6	702.2	1789.4	724.9
Indiana	164	61.5	94.3	241.9	168.1	381.3	971.8	393.6
Iowa	76.8	28.8	44.2	113.3	78.8	178.6	455.2	184.4
Kansas	70.5	26.4	40.5	104	72.3	163.9	417.7	169.2
Kentucky	108.3	40.6	62.3	159.8	111.1	251.8	641.7	260
Louisiana	110.2	41.3	63.4	162.5	113	256.2	652.8	264.5
Maine	33.3	12.5	19.1	49	34.1	77.3	197	79.9
Maryland	148	55.5	85.1	218.3	151.7	344	876.7	355.2
Massachusetts	167.6	62.8	96.4	247.2	171.8	389.6	993	402.2
Michigan	240.9	90.3	138.5	355.3	246.9	560	1427	578.1
Minnesota	137.2	51.5	78.9	202.4	140.7	319.1	813.1	329.4
Mississippi	70.6	26.5	40.6	104.1	72.4	164.1	418.1	169.5
Missouri	148.3	55.6	85.3	218.7	152	344.8	878.6	355.9
Montana	27	10.1	15.5	39.8	27.7	62.7	159.7	64.8
Nebraska	47.2	17.7	27.2	69.7	48.5	109.8	279.9	113.4
Nevada	76.3	28.6	43.9	112.5	78.2	177.3	451.9	183.1
New Hampshire	33.5	12.6	19.3	49.4	34.4	77.9	198.4	80.5

	Filing fees	Time cost of filing	Credit coverage gap closed					Total gain to state (using mean current law estimate)
			Current law			ARP expansion		
			Low est.	High est.	Mean	Low est.	High est.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
New Jersey	222.3	83.4	127.8	327.9	227.9	516.9	1317.2	533.6
New Mexico	50.7	19	29.2	74.8	52	117.9	300.6	121.7
New York	472.3	177.1	271.6	696.7	484.2	1098.1	2798.5	1133.6
North Carolina	256.8	96.3	147.7	378.8	263.3	597.1	1521.6	616.4
North Dakota	18.7	7	10.8	27.6	19.2	43.5	110.8	44.9
Ohio	282.2	105.8	162.3	416.2	289.3	656.1	1671.9	677.3
Oklahoma	96.5	36.2	55.5	142.3	98.9	224.3	571.7	231.6
Oregon	101.8	38.2	58.5	150.1	104.3	236.6	603	244.3
Pennsylvania	311.4	116.8	179	459.3	319.2	723.9	1844.9	747.4
Rhode Island	26.3	9.8	15.1	38.7	26.9	61	155.6	63
South Carolina	126.8	47.6	72.9	187	130	294.8	751.3	304.4
South Dakota	21.8	8.2	12.6	32.2	22.4	50.8	129.4	52.4
Tennessee	169.3	63.5	97.3	249.7	173.5	393.5	1002.8	406.3
Texas	720.8	270.3	414.5	1063.2	738.9	1675.9	4270.8	1730
Utah	81.2	30.4	46.7	119.7	83.2	188.7	480.8	194.8
Vermont	15.5	5.8	8.9	22.9	15.9	36.1	92	37.2
Virginia	208.4	78.2	119.9	307.4	213.7	484.6	1235	500.3
Washington	186.9	70.1	107.5	275.7	191.6	434.5	1107.3	448.6
West Virginia	42.6	16	24.5	62.8	43.7	99.1	252.5	102.3
Wisconsin	141.4	53	81.3	208.6	145	328.8	838	339.4
Wyoming	14	5.2	8	20.6	14.3	32.4	82.7	33.5

Appendix B: Estimation of Error Corrections on Returns

Type of error proceeding	Number overall	Number estimated within Free File eligible population	Number within Free File population that converts to Direct File	Fraction eliminated by Direct File	Number of errors avoided
Automated Underreporter Program (AUR)	1.6 million[33]	1.1 million	528,000	50%[34]	264,000
Math Error	1.2 million[35]	800,000	400,000	30%[36]	120,000
EITC audit	280,000	280,000	140,000	25%[37]	35,000

[33] SOI Table 22.
[34] Research has found that some AUR claims are due to IRS-side mistakes, including identity theft. In these cases, though, identifying the issue up front through population will still decrease the cost of the AUR process, and allow the taxpayer to resolve the issue faster, which has its own substantial benefits to the taxpayer.
[35] SOI Table 23 shows 1.2 million total notices sent in fiscal year 2020, before pandemic payments and advances far inflated the number of math errors sent.
[36] We estimate a lower fraction eliminated than for AUR, since taxpayers previously using software should also generally not have math errors.
[37] Keep in mind that EITC taxpayers currently rely disproportionately on paid preparers with notoriously high error rates. Decreasing the incidence of audit-causing errors by 25% is a conservative assumption.

Appendix C: Estimating the size of the refundable credits coverage gap

Despite years of attention to EITC access, there are not consistent, reliable, publicly available estimates of the amount of refundable credits and refunds that low- and middle-income families leave on the table. Code for America has previously called for more precise reporting on these questions, which would improve our understanding of the size and shape of the gap, plus advance efforts to close it.

Given the ambiguity, we provide low and high estimates for the size of the gap. The findings outlined below are summarized in the following table:

		Current Policy		Policy with ARP expansions	
		Low estimate	**High estimate**	**Low estimate**	**High estimate**
Federal EITC	Total	4.9 million filers $3.6 billion	7 million filers $10 billion	7.5 million filers $7.2 billion	9.3 million filers $13.2 billion
	With children	1 million filers $2.6 billion	3.5 million filers $9.1 billion	*No policy change*	*No policy change*
	Without children	3.9 million filers $1 billion	3.5 million filers, $910 million	6.5 million filers $4.6 billion	5.8 million filers $4.1 billion
Refundable federal CTC		750K filers $800 million	2.6 million filers $2.9 billion	2.7 million filers $14.7 billion	8.1 million filers $44.2 billion
Excess federal withholding		4.9 million filers, $1.3 billion	7 million filers, $1.8 billion	*No policy change*	*No policy change*
Federal total		**$5.7 billion**	**$14.7 billion**	**$23.2 billion**	**$59.2 billion**
Impact of DF		**$4.6 billion**	**$11.8 billion**	**$18.6 billion**	**$47.4 billion**

3a. EITC gap — current law

The high estimate reported in Section 2 reflects the consensus of most published data about the extant EITC gap:

- ➔ IRS reports 26.5 million tax units claimed EITC for TY2018, the last year which both has line-by-line estimates available and which was not impacted by pandemic irregularities. That year, the IRS estimated a 78.1% participation rate. This implies 7.4 million non-claimants.
- ➔ The total claimed (again from the line-by-line estimates) was $64.9 billion, averaging $2,451 per payment. If non-claimants were eligible for payments the same size as

claimants, the gap would be $18.1 billion. But even the most aggressive estimates assume the coverage gap is eligible for smaller-than-average payments, being disproportionately comprised of taxpayers in the phase-in range who are not required to file, and taxpayers without children who are eligible for smaller payments.

- ➔ The Tax Policy Center, citing Plueger (2009), suggests there is an 85% dollar participation rate, which would yield an $11.5 billion gap.
- ➔ CRS implies a gap of 7.2 million filers; arithmetic details and sourcing in the section below.
- ➔ Meanwhile TIGTA (2019) reports a $7.3 billion gap. At the same time, the sourcing is unclear; the report cites IRS estimates, but public IRS estimates do not match these numbers. Moreover, the same report estimates both a 5 million taxpayer gap (reported explicitly) and a 7.2 million taxpayer gap (79% participation and 27 million claimants).
- ➔ Put together, existing reports seem to suggest 5-7.4 million households and $7.3-$11.5 billion in the gap. For our high estimate, we take 7 million households and $10 billion.

Tax units in the gap may be families with or without children. We break them down as follows:

- ➔ IRS line-by-line data (again for TY2018) reports 19.6 million Schedules EIC were filed, which would make 19.6 million claims with children and 6.9 million claims without. (This figure is consistent with CBPP research showing 7 million childless claimants, and consistent with CRS reporting.)
- ➔ CRS reports a participation rate of around 85% with children and 65% without. Combined with the 19.6 and 6.9 million claims above, this would imply 3.4 million with-children and 3.8 million without-children households missing.
- ➔ Plueger (2009) reports that 60% of the gap — in terms of number of tax units — is comprised of those with children; though this is under an outdated version of the policy. This estimate would yield 4.2 million households with and 2.8 without children.
- ➔ Assuming the CRS figures are closer to reality, we assume 3.5 million with-child and 3.5 million childless households in the gap.
- ➔ The average payment for each of these populations is not reported. According to CBPP (and consistent with CRS), the empirical average payment for a family with

children is approximately $3,000, and $300 for a family without. Households who do not claim will have a lower average payment than those who do. If the unclaimed households *did* receive the average payment, the total gap would be $3000*3.5 million + $300*3.5 million = $11.6 billion. Scaling the total down to $10 billion per the above yields $2,600 average unclaimed with children, and $260 without children. This makes $2,600*3.5 million = $9.1 billion for families with children, and $260*3.5 million = $910 million for families without.

The above comprises the high estimate. As Code for America has reported (see p. 4 on cross-household child claims in the linked report), most estimates do not seem to account for the issue of children claimed by the "wrong" household — that is, a child claimed by Household B when it is in fact relatives in Household A who have the stronger legal claim.

- ➔ While 3.5 million households with children do not claim the EITC they deserve, per the above, the IRS estimates that 2.5 million households claim EITC overpayments by improperly claiming a child they are not eligible to claim. It is highly plausible that many of the households with children who fail to claim EITC are Household A in the example above; the child is indeed claimed, but available data is simply ascribing the child to the wrong household. Because the maximum income for the childless EITC is so much lower than the with-child EITC, many households allegedly in the gap may in fact not be eligible for any EITC, with or without children. On net, then, these households are not in the gap; even if Household A were improperly not receiving EITC,[38] in the aggregate this would be canceled out by Household B's improper claim. This dynamic is also consistent with research by Leibel, Lin, and McCubbin (2020), which finds that most improper EITC qualifying child claims are simply cases where a different low-income household related to the child claimed them on their return.

- ➔ We assume that the child overclaim rate largely reflects such cases. We assume that 60% of the alleged EITC-with-children gap (2.1 million) represents households without children who are not eligible for the childless EITC. We assume an additional 10% (350 thousand) are households without children who *are* eligible for the childless EITC. (Because we reassign these households to the childless category, note that there are *more* childless households in the gap under the low estimate than under the high estimate.) The remaining 30% (1 million households) are the true with-children gap, while the childless gap grows to 3.9 million.

- ➔ As in the above section, we assume the average unclaimed EITC-with-children payment is $2,600, and without-children is $260. This yields 1 million * $2,600 = $2.6

[38] Of course, it is also possible that Household B has the proper claim after all, and it is the data sources that have incomplete information about which dependents belong to which taxpayers.

billion for households with children and 3.9 million * $260 = $1 billion for households without children.

Note that, in all cases, there is a distinction between non-claimants who do not file at all (non-filers), and non-claimants who file a return but fail to claim the EITC (non-claimant filers).

- ➔ The argument that Direct File will close the coverage gap for non-claimant filers is not the same as the argument that it will close the gap for non-filers. Direct File *should* close the gap for non-claimant filers *who use Direct File*; the functionality simply does not allow taxpayers to skip over these credits, if eligible. But there is no good argument that those who do not convert to Direct File would be impacted.

- ➔ TIGTA reports that a third of households in the gap are non-claimant filers. Note, though, there are other inconsistencies in this reporting, as noted above. Note, too, that alleged non-claimant filers are prime candidates to be in the category discussed above, of with-child households allegedly in the coverage gap, who actually do not have children. So one third would seem to be an upper bound for the size of this population. By the same token, the fraction in terms of dollars would be smaller still.

- ➔ Given the assumption that half of EITC filers will convert to Direct File (since nearly all EITC filers are Free File-eligible), we can assume one half of non-claimant filers will switch to Direct File. If Direct File closes the gap for 80% of non-filers (67% of gap) and 50% of non-claimant filers (33% of gap), its total impact would close 70% of the gap; or 13% less than the estimate implied by calculating the impact at 80% of the gap. This is in terms of number of filers, and the dollar amount would be smaller still, perhaps closer to 10%. Of course, if TIGTA is overestimating the prevalence of non-claimant filers, the gap grows smaller still, to single digits.

- ➔ For simplicity, we disregard this 10% as a rounding error, and treat the entire gap as non-filers.

3b. EITC gap — ARP expansion

The American Rescue Plan temporarily expanded the EITC for childless households, tripling the maximum income amount and accordingly raising the phase-out income. This section estimates the size of the gap if these changes were made permanent.

- ➔ CBPP estimates that the ARP expansions roughly tripled the number eligible for the childless EITC. By naive averaging, this would increase the gap by 7.8 million in the low-gap case or 7 million in the high-gap case. At the same time, as higher-income households, more of these households will already be filers. If 75% of these

newly-eligible households already file, then the additional households in the gap would be 2.6 million in the low-gap case or 2.3 million in the high-gap case.

- ➔ In dollar terms, we assume that, on average, the dollar amount of the credit for each household currently in the gap would triple.
- ➔ At present, the average childless credit is $300; in a world with a tripled credit, we might expect the average to rise to $900. On the other hand, newly eligible households will be disproportionately in the phase-out range and may receive less. We take the halfway mark and assume newly eligible households are eligible for $600 each. This yields $4.6 billion in the low-gap case and $4.1 billion in the high-gap case. (Again, recall there are more childless EITC non-claimants in the low than the high scenario.)

3c. CTC gap — current law

Unlike for EITC, the IRS does not appear to publish any data on the coverage of the CTC — likely because, until fairly recently, it was relatively small and largely non-refundable.

- ➔ Under current law, most families eligible for the EITC with children will also be eligible for CTC. There are two principal distinctions: (1) the CTC is not available to households below $2,500 in income, and (2) CTC is not available for children over age 17. (There are additional distinctions regarding non-custodial dependents and 24(g)/32(k) bans, but these are likely to be marginal. Moreover, it is not obvious whether on net these effects decrease or increase CTC child counts relative to EITC.)
    - ◆ According to CRS (see Table A-2), 870,000 households with children claiming EITC earn less than $5,000, which represents 4.5% of all EITC households with children. $5,000 is more than $2,500; then again, such households are liable to be seriously overrepresented in the coverage gap, probably many times over. We assume 15% of households will be in the $0-2,500 range.
    - ◆ According to IRS line-by-line data for Schedule EIC, 1.97 million EITC qualifying children are over 18, out of 32.8 million total EITC qualifying children. This reflects 6% of EITC children. An additional 3.4 million are likely to be 17- or 18-year olds ((32.8-1.97)/9) — an additional 10%. But, some households will have both a CTC-eligible and a non-CTC-eligible dependent. As such, we assume the age restrictions wipe out not another 16% of households, but another 12%. Applying this to the remaining 85% eligible, this brings the total eligible fraction down to 75%.
- ➔ This yields a current-law CTC gap of 750,000 in the low-estimate case (75% * 1 million) and 2.6 million in the high-estimate case (75% * 3.5 million).

➔ CTC phases in at 15% above $2,500. If the mean earned income of a family in the gap were $10,000, the average missed payment would be $1,125. At 750,000 households, that generates a $800 million gap; at 2.6 million, a $2.9 billion gap.

3d. CTC gap — ARP expansion

The American Rescue Plan made the Child Tax Credit fully refundable down to $0 of income, and increased the amount to $3,000 per older child and $3,600 per younger child. (Throughout these calculations, we use an average of $3,200 per child, since one third of the age range received the larger payment.) It also made 17-year-olds eligible for the credit, though not 18-year-olds.

➔ By incorporating $0-income households, these changes expand eligibility to a vastly larger set of households than are currently included in tax benefits eligibility. As such, it is better to start from scratch than to try to work from existing EITC estimates.

➔ In May 2021, Treasury released data suggesting there were 2.3 million children claimed on health insurance policies and not yet claimed for the expanded CTC.[39] There are two principal factors to consider in extrapolating this figure to the full population of unclaimed children:

- The data was calculated in early 2021, after a year of extraordinary tax filing activity by $0-income households to claim Economic Impact Payments. By early 2021, millions of households who usually do not file had filed extraordinary returns (using temporary simplified filing tools and/or induced by special outreach campaigns) that established their advance CTC eligibility; for example, seven million households had filed using the circa-2020 Non-Filer Tool by September 2020. The "true" baseline rate of non-filers, in a non-pandemic environment, is surely higher than it was in May 2021. How much higher? We assume the baseline number could easily be 1.33-2 times the estimate.

- Children without health insurance did not show up in this May 2021 data. Because the covariance of non-insurance and non-filing is surely high, the non-insured population is a major confounder. The true number of children could easily be 1.5-3 times the estimate.

[39] An estimate of 4 million children — created by CBPP — was frequently prominently cited in 2021. CBPP's estimate is just the 2.3 million from these Treasury figures, plus an additional 1.7 million new births in 2021 not yet claimed on refunds. CBPP notes but does not estimate the additional children implied by those missing health insurance.

- Putting the prior two estimates together yields 4.6-13.8 million children. If the average child is eligible for $3,200, this makes a dollar gap of $14.7-$44.2 billion.

➔ According to CRS (Figure 10), the average household with children claiming EITC has 1.7 EITC qualifying children (also consistent with the line-by-line data showing 32.8 million children on 19.6 million claims). On one hand, this is artificially truncated at 3 due to the law, so 1.7 is an underestimate of CTC qualifying children; on the other hand, as above, around 11% of EITC qualifying children are not eligible for CTC. In 2021, Treasury and IRS reported (in slightly different months) that ARP CTC payments were going to 36 million families with 61 million children — in other words, 1.7 average CTC children per household, exactly in line with the EITC figure.

➔ If we assume the average household has 1.7 CTC qualifying children, this makes 2.7-8.1 million households.[40]

3e. Excess federal withholding

It is reasonable to assume that many of the EITC-eligible households will also have some excess withholding they claim with their refunds.

➔ There is limited data available about the excess withholding of low-income households.

➔ The IRS reported last year that there were $1.5 billion in outstanding refunds (*not including credits*) available to 1.5 million households from Tax Year 2019. Tax Year 2019, though, was an anomalous year, with many additional returns filed in 2020 to claim Economic Impact Payments; there were 14 million more returns for TY2019 (170 million) than for TY2018 (156 million). This certainly depresses the number of remaining households (indeed, the number of non-filer households noted here is far too low for an average year, based on the EITC gap), and may make the average excess withholding unreliable. The estimated excess withholding of around $1,000 per non-filer seems far too high. We take a $250 average instead.

➔ We assume that the number of households with excess withholding is equal to the EITC gap.

[40] If we were to instead start from the numbers of EITC households with children: The income floor and the 17-year-old restrictions would no longer apply, leaving only the 11% of dependents who are over 17 outside of CTC eligibility. If we assume this impacts 8% of households (due to cases where one child is eligible and one isn't, 92% of EITC-with-child households in the gap are eligible for CTC, rather than 75%. At 1.7 children per household, this would yield, in the low case, 900 million filers claiming $4.9 billion and, in the high case, 3.2 million filers claiming $17.4 billion. These figures represent about one third of the total estimates, which appears to be the right order of magnitude.