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Inequality in annual earnings worsens in 2021

Top 1% of earners get a larger share of the earnings pie while the bottom 90% lose ground

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Key findings

- In 2021, annual wages rose fastest for the top 1% of earners (up 9.4%) and top 0.1% (up 18.5%), while those in the bottom 90% saw their real earnings fall 0.2% between 2020 and 2021. Workers in the 90th–99th percentile of the earnings distribution also experienced real losses in 2021.

- The top 1% earned 14.6% of all wages in 2021—twice as high as their 7.3% share in 1979. The bottom 90% received just 58.6% of all wages in 2021, the lowest share on record, and far lower than their 69.8% share in 1979.

- From 1979 to 2021:

  - Wages for the top 1% and top 0.1% skyrocketed by 206.3% and 465.1%, respectively, while wages for the bottom 90% grew just 28.7%.

  - On an annualized basis, bottom 90% wages grew only 0.6% per year, compared with 2.7% and 4.2% annualized wage growth for the top 1% and top 0.1%, respectively.

Rising wage inequality and slow and uneven growth in real (inflation-adjusted) hourly wages for the vast majority of workers have been defining features of the U.S. labor market for most of the last 40 or so years. In only about 10 years since 1979 did most workers see any consistent positive wage growth: in the tight labor market of the late 1990s and in the five years leading up to the pre-pandemic labor market peak in 2019 (Gould 2020). Some low-wage workers have experienced disproportionate wage gains in the current business cycle—gains that even beat out high inflation (Gould and Kandra 2022).

However, the latest data on *annual* earnings from the Social Security Administration (SSA 2022a) show that the very top continues to pull away and amass a larger share of the earnings pie, while the bottom 90% continues to fall further behind.

Wage growth was vastly unequal over the last 40 years and in the pandemic labor market

The latest earnings data from the Social Security Administration (SSA) allow us to analyze wage trends for the top 1% and other very high earners, as well as for the bottom 90% through 2021 (SSA 2022a). Earnings distribution data from the SSA for 1991-2021, paired with data from Kopczuk, Saez, and Song (2007) from 1979-1990, are applied to SSA's total wage and salary earnings (SSA 2022b) to construct total and average earnings in each wage group (see Methodology section for details).

Table 1 shows average annual earnings by wage group for each of the business cycle peaks since 1979, as well as for the last two years (in 2021 dollars). Between 1979 and 2019, the most recent business cycle peak year before the pandemic recession, average earnings growth was just under 50% (49.8%). This means that over that 40-year period, real average wages grew about 1.0% on an annual basis.

That average growth was not distributed equally across the wage distribution. In fact, wage growth for the bottom 90% of workers grew only 29.0% over that time period, or an average annualized rate of 0.6%, while the top 1% of wage earners experienced 163.9% wage growth (2.5% annually) and the top 0.1% experienced 337.4% wage growth (3.8% annually) over the same 40-year period. Even those in the 90th–99th percentiles—the top 10% excluding the top 1%—experienced wage growth far faster than the average, 76.7% between 1979 and 2019, or an annualized growth rate of 1.4%. This upward distribution of wages over the long term has meant slow wage growth for those in the bottom 90% of the wage distribution—alternately slow and stagnant increases in living standards for much of the last 40 years.

In the first year of the pandemic, average wages grew more quickly—a statistical anomaly that occurred because the bottom dropped out of the labor market (Gould and Kandra 2021). Low-wage (and low-hour) workers in leisure and hospitality lost their jobs in great numbers, far more than in any other sector. This led to an artificial increase in average annual wages. Despite this compositional boost to measured wages, the bottom 90% of wage earners saw very little gains in wages, while those at the top continued to see their wages rise.

In 2021, the labor market normalized as many low-wage jobs returned. For some of the lowest-wage workers, wage growth was actually stronger than for others, as employers worked a bit harder to entice them back into jobs that had become less desirable during the pandemic (Gould and Kandra 2022).

According to the latest SSA data, the only group to experience real wage gains between 2020 and 2021 was the top 1% of the earnings distribution. While the bottom 90% experienced losses of 0.2%, those in the 90th–95th percentiles experienced larger losses of 2.0%. Between 2020 and 2021, earnings for the top 1% and top 0.1% rose 9.4% and

18.5%, respectively.

When we look over the two-year period of the pandemic labor market, 2019–2021, all earnings groups in the top 10% experienced net wage gains. Again, the largest gains were at the very top, with wages for the top 1% and top 0.1% rising 16.1% and 29.2%, respectively. The bottom 90% experienced an overall loss of 0.2%.

Table 1

Average annual wages (selected years, 2021 dollars) and percent change in annual wages over time, by wage group, 1979–2021

Year	Average annual wages (2021$)							Long-term (% change)		Pandemic labor market (% change)	
	1979	1989	2000	2007	2019	2020	2021	1979–2019	1979–2021	2020–2021	2019–2021
Bottom 90%	$28,415	$29,289	$32,770	$33,814	$36,655	$36,660	$36,571	29.0%	28.7%	-0.2%	-0.2%
90th–99th percentile	$93,226	$106,915	$137,938	$147,705	$164,760	$169,455	$167,639	76.7%	79.8%	-1.1%	1.7%
90th–95th	$79,140	$86,520	$110,104	$117,084	$129,259	$132,401	$129,724	63.3%	63.9%	-2.0%	0.4%
95th–99th	$110,833	$132,409	$172,730	$185,981	$209,137	$215,771	$215,032	88.7%	94.0%	-0.3%	2.8%
Top 5%	$142,159	$194,873	$270,682	$288,048	$308,487	$322,349	$335,891	117.0%	136.3%	4.2%	8.9%
Top 1%	$267,464	$444,731	$662,488	$696,316	$705,887	$748,662	$819,324	163.9%	206.3%	9.4%	16.1%
99.0th–99.9th	$232,046	$341,410	$444,845	$474,979	$499,389	$521,225	$542,283	115.2%	133.7%	4.0%	8.6%
99.9th–100th	$586,222	$1,374,624	$2,621,271	$2,688,346	$2,564,364	$2,795,589	$3,312,693	337.4%	465.1%	18.5%	29.2%
Average	$36,639	$40,430	$48,532	$50,689	$54,877	$55,731	$56,195	49.8%	53.4%	0.8%	2.4%

Source: EPI analysis of Kopczuk, Saez, and Song, "Uncovering the American Dream: Inequality and Mobility in Social Security Earnings Data Since 1937" (2007) and Social Security Administration wage statistics.

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Figure A illustrates the cumulative gains in wages for select groups in the earnings distribution over the entire measured period, 1979–2021. The top 1% of wage earners experienced 206.3% growth, in stark contrast to the 28.7% growth experienced by the bottom 90% of the wage distribution. Wages for the top 0.1% grew more than twice as fast as wages for the top 1%, up 465.1% between 1979 and 2021. Wages for the 90th–95th and 95th–99th percentiles grew faster than the average wage growth of 53.4%, but not nearly as fast as the growth at the top.

The bottom 90% of wage earners experienced wage growth that lagged far behind average growth for much of the last 40-plus years. The data here support evidence from other data sources that show wages for middle-wage workers grew mainly in two periods since 1979: the late 1990s and the five years leading up to the more recent labor market peak in 2019 (Gould 2020). It's not an accident that these were two periods when policymakers allowed the unemployment rate to reach 4% (or lower) without slowing the economy in the name of inflation control.

The wage growth in the bottom 90% in the 1995–2000 and 2013–2019 periods represents 90% of all their wage growth over the entire 1979–2019 period (Mishel and Kandra 2021). Figure A also makes clear the lack of gains for all but the very top since 2019.

It's worth noting not only the stark differences in growth rates, but also the resulting stark differences in wage levels across groups in 2021 as compared with earlier periods. In 1979, the bottom 90% earned $28,415, while the top 5% earned, on average, $142,159. Even then, there was vast inequality between wage groups, with the top 5% earning five times as much as the bottom 90%. But the inequality that existed at that time pales in comparison with the inequality experienced now. In 2021, average annual earnings of the bottom 90% were $36,571, while the top 5% earned, on average, $335,891, more than nine times as much as the bottom 90%.

# The highest earners have amassed a growing share of total wages

The disparities in wage growth evidenced in Table 1 and Figure A reflect a sharp rise in the share of total wages earned by those at the very top. **Table 2** displays the share of total earnings garnered by each wage group in business cycle peak years between 1979 and 2021, as well as changes over the long term and in the pandemic labor market. The table highlights the sharp rise in top earnings shares even relative to already substantial inequality that existed in 1979.

In 2021, the bottom 90% of workers earned only 58.6% of total earnings, while the top 5% earned 29.9%. That is, a group of workers that is 18 times as big in size earned only about twice as much as the much smaller group. The share of earnings for the bottom 90% fell 11.2 percentage points between 1979 and 2021 to its lowest level on record. Over the same period, the share of earnings for the top 5% grew 10.5 percentage points.

Earnings inequality continues to grow in the pandemic labor market

Cumulative percent change in real annual wages, by wage group, 1979–2021
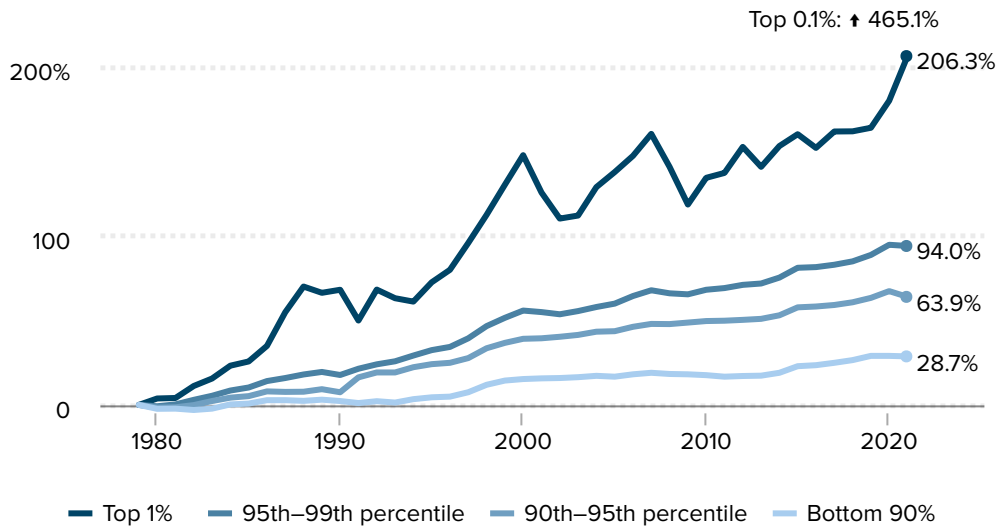
Top 0.1%: ↑ 465.1%

Source: EPI analysis of Kopczuk, Saez, and Song, "Uncovering the American Dream: Inequality and Mobility in Social Security Earnings Data Since 1937" (2007) and Social Security Administration wage statistics.

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The share of earnings enjoyed by the top 1% doubled from 7.3% of total earnings in 1979 to 14.6% of total earnings in 2021. This is the highest share of earnings for the top 1% since 1937, when data first became available (Kopczuk, Saez, and Song 2007).

The share of earnings at the very top—the top 0.1% of wage earners—is driving the rising earnings share of the top 1%. The share of the top 0.1% increased from 1.6% of total earnings in 1979 to a whopping 5.9% of total earnings in 2021, roughly 3.7 times as much. Of the 7.3 percentage point rise in the share claimed by the top 1%, 4.3 percentage points (roughly 60%) can be explained by the rise of the top 0.1% share. In short, inequality and growing income concentration is happening *even within the top 1% of earnings*.

Table 2

Share of all wages (selected years) and percentage-point change in share of total wages over time, by wage group, 1979–2021

Year	Share of wages							Long-term (ppt. change)		Pandemic labor market (ppt. change)	
	1979	1989	2000	2007	2019	2020	2021	1979–2019	1979–2021	2020–2021	2019–2021
Bottom 90%	69.8%	65.2%	60.8%	60.0%	60.1%	59.2%	58.6%	-9.7%	-11.2%	-0.6%	-1.5%
90th–99th percentile	22.9%	23.8%	25.6%	26.2%	27.0%	27.4%	26.8%	4.1%	3.9%	-0.5%	-0.2%
90th–95th	10.8%	10.7%	11.3%	11.5%	11.8%	11.9%	11.5%	1.0%	0.7%	-0.3%	-0.2%
95th–99th	12.1%	13.1%	14.2%	14.7%	15.2%	15.5%	15.3%	3.1%	3.2%	-0.2%	0.1%
Top 5%	19.4%	24.1%	27.9%	28.4%	28.1%	28.9%	29.9%	8.7%	10.5%	1.0%	1.8%
Top 1%	7.3%	11.0%	13.7%	13.7%	12.9%	13.4%	14.6%	5.6%	7.3%	1.1%	1.7%
99.0th–99.9th	5.7%	7.6%	8.2%	8.4%	8.2%	8.4%	8.7%	2.5%	3.0%	0.3%	0.5%
99.9th–100th	1.6%	3.4%	5.4%	5.3%	4.7%	5.0%	5.9%	3.1%	4.3%	0.9%	1.2%

Source: EPI analysis of Kopczuk, Saez, and Song, "Uncovering the American Dream: Inequality and Mobility in Social Security Earnings Data Since 1937" (2007) and Social Security Administration wage statistics.

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Growing inequality was caused by intentional policy decisions

The level of earnings inequality that existed in 1979 could have simply continued through to today. Instead, we have seen a growing concentration of earnings at the top and the very top of the earnings distribution, while the bottom 90% has experienced meager gains. Wages for the top 1% grew more than seven times fast as wages for the bottom 90% between 1979 and 2021. The top 1% now amasses a record share of total earnings, while the bottom 90% share of earnings has hit a historic low.

This slow progress for the vast majority of workers reaffirms the need to place robust wage growth and worker power at the center of economic policymaking. Over the last four decades, a series of policies have reduced the leverage of most workers to achieve faster wage growth (Mishel and Bivens 2021). Such policies include:

- tolerating (or even encouraging) excessive unemployment

- failing to routinely raise the federal minimum wage to protect workers' purchasing power

- writing the rules of globalization to let employers use them as a tool for wage suppression

- withering of labor standards, like the overtime threshold governing how many workers are entitled to higher pay for longer hours

- lack of enforcement against wage theft

- allowing discrimination based on gender, race, and ethnicity

- new employer-mandated agreements that reduce worker bargaining power, such as noncompetes and mandatory arbitration of grievances

- fissuring of the workplace and supply-chain dominance

- sharp cuts in marginal tax rates, deregulation, and loose corporate governance oversight, which led to explosions in executive and financial-sector pay

Most critically, current labor law does not adequately protect workers' right to form unions. With the possible exception of excess unemployment, declining union membership plays the single most significant role in slow and unequal wage growth (Mishel and Bivens 2021). This erosion was not driven by workers' declining interest in unions, but rather by concerted employer opposition, along with state and federal policy that has made it nearly impossible for workers to form unions in the face of unwilling employers (Rosenfeld, Denice, and Laird 2016; McNicholas et al. 2019).

To stem inequality and see healthy wage growth for the vast majority of workers, we need to use all the tools in our toolbox to reverse these policy trends—including prioritizing full employment, strengthening and enforcing labor standards, and removing obstacles to

workers forming unions.

Acknowledgments

This report builds on Larry Mishel's foundational work on wage inequality using the Social Security Administration data and related research by Wojciech Kopczuk, Emmanuel Saez, and Jae Song. Larry's insights have been vital to better understanding wage inequality within the top 5% given that such detailed wage data for top earners is not available from other data sources. The new methodology presented here benefited from Josh Bivens's insights.

Appendix: Methodology

The Social Security Administration (SSA) provides the distribution of net compensation using data reported by employers on W-2 tax forms. These data allow us to estimate wage trends for the top 1% and top 0.1% of earners, as well as those for the bottom 90% and other categories among the top 10% of earners. This accurate data on upper-end inequality is not available in more typical sources for other wage analyses—for instance, see Gould and Kandra 2022 or the EPI data library (EPI 2022), which primarily utilize the Current Population Survey. The SSA earnings data is not top-coded, meaning the underlying earnings reported are actual earnings and not "capped" or "top-coded" for confidentiality. This allows an accurate look at upper-end earnings trends over time, unlike much other survey data (for instance, see Gould, deCourcy, and Mokhiber 2022).

Throughout, we refer to this net compensation as "earnings" or "wages"; the latest data can be found in SSA (2022a). This data is roughly equal to the "gross pay" people see on their W-2 forms at tax time. SSA reports earnings data in $5,000 intervals (or bins) between $0.01 to $200,000, in $50,000 intervals between $200,000 and $500,000, in $500,000 intervals between $500,000 and $10,000,000, and in three final intervals for those earning $10,000,000–$20,000,000, those earning $20,000,000–$50,000,000, and those earning $50,000,000 and over. In each interval, SSA reports the number of workers and the aggregate amount of earnings, or net compensation, in each bin.

Using these pieces of information, we linearly interpolate to derive our percentile cutoffs, building from the bottom up. By definition, a linear interpolation assigns all workers in a reported wage group the average amount of earnings in that group. For instance, to construct earnings for the bottom 90% of earners, we supplement data for the group of workers in the interval just below the 90th percentile with a share of workers (and their earnings) in the wage interval just above the 90th percentile to create a group containing exactly the bottom 90% of workers. In this way, we systematically construct the share of earnings for the bottom 90%, the 90th–95th percentile bracket, the 95th–99th percentile bracket, the top 1%, and, within the top 1%, the 99.0th–99.9th percentile and the top 0.1%.

We implement this procedure to determine the share of earnings for each percentile

bracket from 1991 to 2021, as the SSA provides these data only as far back as 1991. To extend this series back to 1979, we use the share of earnings for each wage group provided by Kopczuk, Saez, and Song (2007). While their research provides a valuable benchmark on earnings inequality, it only uses data on commerce and industry workers because these workers were the only group consistently covered by Social Security since 1939. (Kopczuk, Saez, and Song's study looks at workers' lifetime earnings and needs to go back far in time to do that.) These commerce and industry workers represented about 70% of all employment in Kopczuk, Saez, and Song's research.

We can look at the years between 1991 and 2004 to see how much the restriction to only commerce and industry workers might potentially bias findings that result from "backcasting" using the full sample of workers. When we do this, we find the distribution of earnings is consistent in this overlapping period, as shown in **Appendix Figure A**. For all earnings groups, the share of earnings is consistent in pattern and level in the overlapping time period of 1991–2004. The average difference in the size of any of the earnings groups between the two data sources is less than 1.0 percentage points. Given that the difference is trivially small over the 1991–2004 period, we use the Kopczuk, Saez, and Song (2007) share of earnings for 1979–1990, and then use the SSA data for 1991–2021. We apply shares from these two sources to total wage and salary earnings found in Table 4.B2 of the Annual Statistical Supplement, 2022 (SSA 2022b) to obtain the aggregate earnings of each group.

Prior releases of EPI's analysis—for instance, see Mishel and Kandra (2021)—used the earnings distribution and total earnings from Kopczuk, Saez, and Song (2007) from 1979 to 2004, and extended their series using SSA data on total earnings and distribution of earnings to 2020. The extension of the Kopczuk, Saez, and Song (2007) series in that work imputed the share of earnings, level of earnings, and employment based on the difference in the two data sources in 2004. In this work, we simply rely on the distribution of earnings from Kopczuk, Saez, and Song (2007) for the years 1979 to 1990, applying that distribution to SSA total wage and salary earnings as we did for the years 1991 to 2021. While none of the findings in any of the wage groupings are materially different from this change in procedure, this update serves to simplify the methodology and use the more recent SSA data as the standard, while continuing to rely on Kopczuk, Saez, and Song (2007) for historical data.

Social Security Administration and Kopczuk, Saez, and Song data closely track each other in the overlapping period, 1991–2004

Share of earnings for select earnings groups using two different data series, 1979–2021
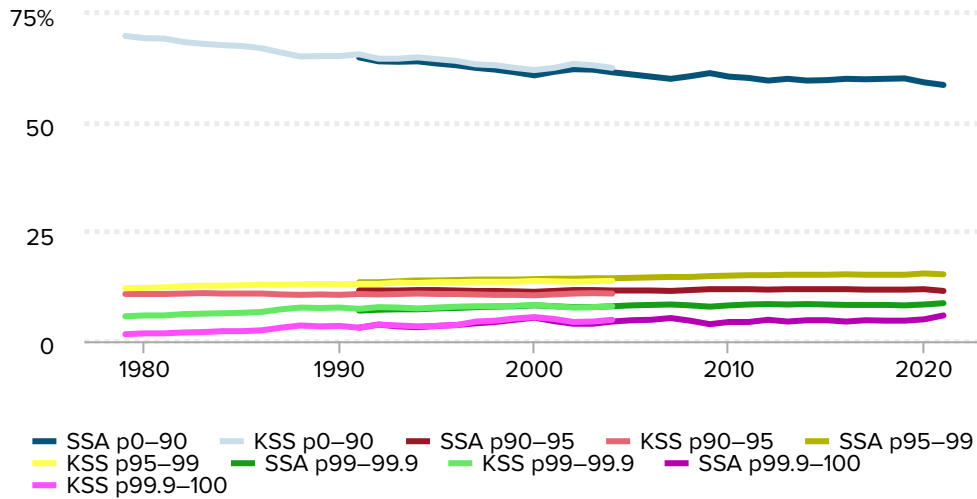
Note: Figure shows all available years of Social Security Administration (SSA) and Kopczuk, Saez, and Song (KSS) data, color-coded and coordinated by percentile. For example, SSA p0–90 identifies Social Security Administration data for the bottom 90% and KSS p0–90 identifies Kopczuk, Saez, and Song data for the bottom 90%.

Source: EPI analysis of Kopczuk, Saez, and Song (2007) and Social Security Administration wage statistics.

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References

Economic Policy Institute (EPI). 2022. "Wages by Percentile and Wage Ratios." State of Working America Data Library, last updated March 2022.

Gould, Elise. 2020. *State of Working America Wages 2019: A Story of Slow, Uneven, and Unequal Wage Growth Over the Last 40 Years.* Economic Policy Institute, February 2020.

Gould, Elise, and Jori Kandra. 2021. *Wages Grew in 2020 Because the Bottom Fell Out of the Low-Wage Labor Market.* Economic Policy Institute, February 2021.

Gould, Elise, and Jori Kandra. 2022. *State of Working America 2021: Measuring Wages in the Pandemic Labor Market.* Economic Policy Institute, April 2022.

Gould, Elise, Katherine deCourcy, and Zane Mokhiber. 2022. "Stagnant Topcode Thresholds Threaten Data Reliability for the Highest Earners and Make Inequality Difficult to Accurately Measure." *Working Economics Blog* (Economic Policy Institute), April 26, 2022.

Kopczuk, Wojciech, Emmanuel Saez, and Jae Song. 2007. "Uncovering the American Dream: Inequality and Mobility in Social Security Earnings Data Since 1937." National Bureau of Economic Research Working Paper no. 13345, August 2007.

McNicholas, Celine, Margaret Poydock, Julia Wolfe, Ben Zipperer, Gordon Lafer, and Lola Loustaunau. 2019. *Unlawful: U.S. Employers Are Charged With Violating Federal Law in 41.5% of All Union Election Campaigns.* Economic Policy Institute, December 2019.

Mishel, Lawrence, and Josh Bivens. 2021. *Identifying the Policy Levers Generating Wage Suppression and Wage Inequality.* Economic Policy Institute, May 2021.

Mishel, Lawrence, and Jori Kandra. 2021. "Wage Inequality Continued to Increase in 2020." *Working Economics Blog* (Economic Policy Institute), December 13, 2021.

Rosenfeld, Jake, Patrick Denice, and Jennifer Laird. 2016. *Union Decline Lowers Wages of Nonunion Workers: The Overlooked Reason Why Wages Are Stuck and Inequality Is Growing.* Economic Policy Institute, August 2016.

Social Security Administration (SSA). 2022a. "Wage Statistics for [1991–2021]." Series of data tables, Social Security Administration website. Accessed November 14, 2022.

Social Security Administration (SSA). 2022b. "Table 4.B2: Number of Workers With Social Security (OASDI) Taxable Earnings and Amount of Earnings, by Type of Earnings, 1951–2021" [HTML table]. Accessed November 14, 2022.