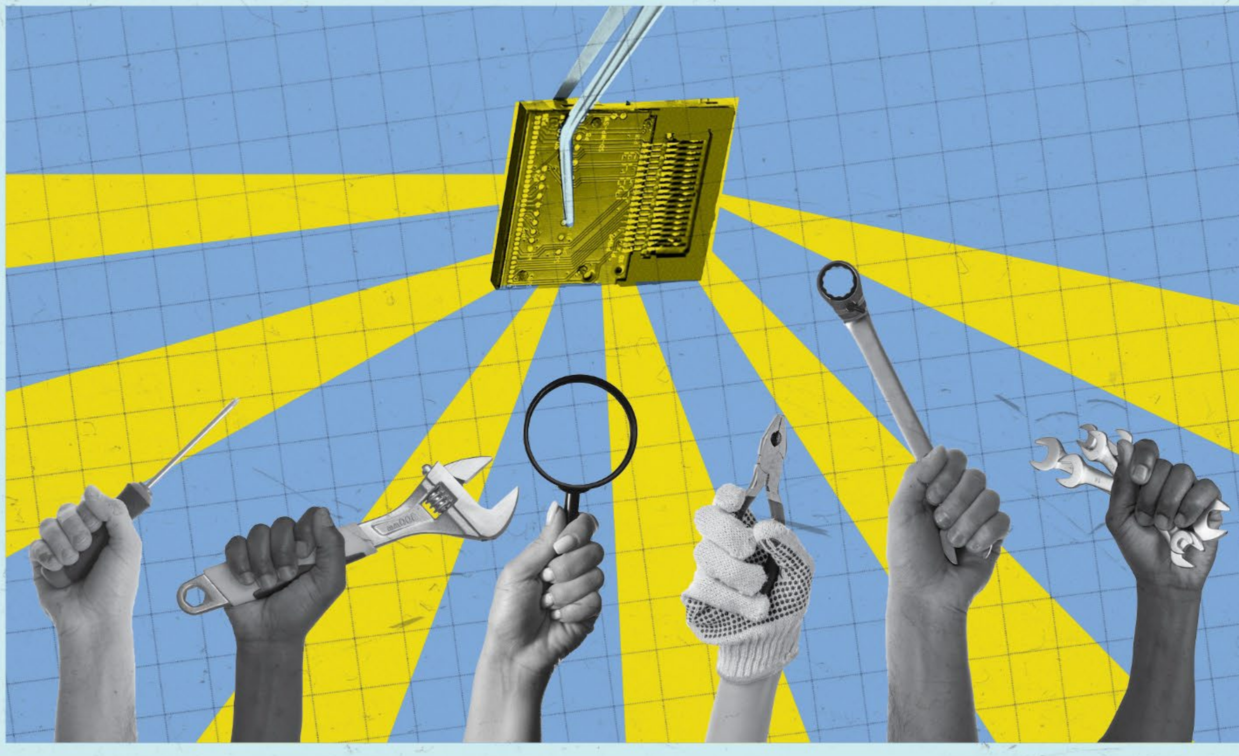

Maximizing the Benefits *of the* CHIPS Program

Commonsense guardrails are needed *to* protect taxpayers dollars from wasteful stock buybacks *and* excessive CEO pay.

Institute for Policy Studies *and*
Americans for Financial Reform Education Fund

July 11, 2024

Institute for Policy Studies
Americans for Financial Reform Education Fund

Contents

Introduction

The 2022 CHIPS and Science Act represents a huge opportunity to both bolster domestic semiconductor production and encourage more equitable and sustainable corporate practices.

This report zeroes in on the law's $39 billion in subsidies for semiconductor manufacturing, and specifically on the Biden administration's decision to grant preferential treatment in the awarding of these subsidies to firms that agree to forgo all stock buybacks for five years. This policy sends a critical message about the importance of ensuring that public investment dollars are used for their stated purpose in ways that benefit working families and build a stronger economy, rather than to further enrich executives and wealthy shareholders.

The administration has a clear commitment to discouraging this wasteful practice and ensuring that public dollars are spent equitably for productive ends. To give real teeth to this commitment, Department of Commerce officials should include explicit buyback restrictions in the CHIPS subsidy contracts they are currently negotiating with a number of semiconductor manufacturers.

The semiconductor industry and stock buybacks

The semiconductor industry has been a major exploiter of stock buybacks, a financial maneuver that artificially inflates the value of company shares (and the value of executive stock-based pay) while siphoning resources from worker wages, R&D, and other productive investments.

Stock buyback defenders often try to justify the practice as a legitimate tool for boosting shares that the market has undervalued. They also sometimes claim that buybacks merely return "left over" money to shareholders after meeting planned payroll, investment, and other commitments and thus have little to no effect on capital allocation or wages. New SOC Investment Group analysis of seven leading semiconductor companies debunks these arguments.

The analysis indicates that buyback activity during the 2019-2023 period was concentrated not among companies with undervalued shares but among the most highly valued companies, and at times when those valuations were elevated. The SOC researchers also found that when market signals indicated that a company should invest more, semiconductor companies did not boost investment activity, but instead bought back shares.

To further understand recent buyback trends, the analysis in this report examines buybacks by the 11 companies that had signed preliminary memoranda of terms with the Department of Commerce for CHIPS subsidies as of June 30, 2024. (**see tables**) The subsidies for these 11 firms are worth nearly $30 billion combined.

Key findings:

- During the period 2019 to 2023, these 11 chipmakers spent more than $41 billion combined on stock buybacks. That would've been enough to provide 300,000 employees a $27,541 bonus every year for five years.

- Intel spent the most on stock buybacks, a whopping $30.2 billion over the study period. With that sum, the U.S. chipmaker could've given each of its 124,800 employees a $48,000 bonus every year from 2019 to 2023. Intel is in line to receive as much as $8.5 billion in CHIPS subsidies – the most of any firm.

  In 2023, Intel had 11,000 technicians in the United States. While most of these production workers made more than $63,000 per year last year, about 11 percent (1,194) earned less than $50,000, according to the firm's own reporting. While Intel has its headquarters and fabrication facilities mostly in the United States, aggressive offshoring has resulted in the siting of 33 facilities in other countries. The foreign Intel facilities handling the most labor-intensive portion of the production process, assembly and testing, are located in China, Malaysia, Vietnam, and Costa Rica – all countries known for relatively low wages.

- Four of the firms with preliminary agreements have board-approved share repurchase plans that would allow an additional $14.3 billion in buyback spending. Intel has the largest amount authorized, with $7.2 billion remaining in their plan.

- We found no evidence that any of the companies with preliminary agreements have publicly committed to suspend their existing share repurchase plans – or to refrain from authorizing new plans – during the grant period. In fact, when members of Congress asked BAE Systems executives if the firm would commit to pausing stock buybacks or to not engage in future ones while receiving a taxpayer-funded CHIPS grant, they declined to answer.

Stock Buybacks and CHIPS Subsidies
($millions)

Companies with preliminary CHIPS agreements	2023	2022	2021	2020	2019	Total, 2019-2023	Remaining in share repurchase plan	CHIPS subsidy - preliminary
Intel	$0	$0	$2,415	$14,229	$13,576	$30,220	$7,200	$8,500
TSMC Arizona*	$0	$28	$0	$0	$0	$28	$0	$6,600
Samsung Electronics	$0	$0	$0	$0	$0	$0	$0	$6,400
Micron Technology	$425	$2,557	$1,294	$251	$2,729	$7,256	$3,110	$6,140
Global Foundries	$0	$0	$0	N/A	N/A	$0	$0	$1,500
Microchip Technology	$946	$426	$36	$0	$0	$1,408	$2,030	$162
Polar Semiconductor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$120
Absolics**	$0	$0	$0	$0	$0	$0	$0	$75
Entegris	$0	$0	$67	$45	$80	$192	$0	$75
BAE Systems	$711	$999	$467	$0	$0	$2,177	$2,000	$35
Rocket Lab***	$0	$0	$30	$0	$0	$30	$0	$24
TOTAL	$2,082	$4,010	$4,309	$14,525	$16,385	$41,311	$14,340	$29,631

*subsidiary of Taiwan Semiconductor Manufacturing Company. ** subsidiary of SK Group. *** parent of SolAero Technologies

Sources: Stock buyback information: *Wall Street Journal* market data and 10-K and Form 20-F reports filed with the SEC. CHIPS funding: U.S. Department of Commerce, National Institute of Standards and Technology. N/A: not applicable - privately held.

The semiconductor industry and excessive CEO pay

When stock buybacks artificially boost the value of a company's shares, this in turn pumps up the value of executives' stock-based compensation and makes it easier for them to hit bonus targets tied to share values. Research also indicates that executives often time the sale of their personal stock holdings to cash in on the stock price surge that typically follows a buyback announcement. An SEC investigation of several hundred such announcements in 2017 and 2018 found that these announcements boosted share prices by an abnormally high average of 2.5 percent in the following month, and CEOs and other top executives sold five times as much stock in the eight days after an announcement as they did in the days before the announcement.

Research by Professor Lenore Palladino of the University of Massachusetts-Amherst reinforces these findings. Her analysis of transactions over a 12-year period found that significant stock sales by corporate executives are nearly twice as common in quarters when meaningful stock buybacks take place as they are in other quarters.

Opportunities for reaping huge stock buyback windfalls have expanded as equity-based pay (stock awards, stock options, performance stock units, restricted stock, etc…) has become an increasingly large share of executive compensation packages. The Economic Policy Institute found that realized equity compensation made up more than 81 percent of total average realized CEO pay at big corporations in 2022.

Key findings:

- Executive compensation data are available for 8 of the 11 companies with preliminary CHIPS agreements. At these firms, CEO compensation averaged $13.6 million, median pay averaged $73,046, and the average gap between CEO and median worker pay stood at 200 to 1 in 2023.

- Micron Technology CEO Sanjay Mehrotra took in the largest compensation, with a total package valued at $25.3 million, while half of Micron employees made less than $54,570 last year.

- The value of the CHIPS grantee CEOs' personal holdings of company stock total more than $2.7 billion, or $306 million on average. These holdings reflect the tremendous potential for executives to cash in on artificially created bumps in share prices resulting from stock buybacks (or buyback announcements).

- Chey Tae-won, Chairman and CEO of SK Inc., the parent company of CHIPS recipient Absolics, was sitting on the largest personal stock holding, with shares valued at more than $1.5 billion as of June 1, 2024. This massive stockpile may dwindle, however, in light of a recent court order requiring the Korean mogul to pay $1 billion as part of a divorce settlement.

- Microchip Technology reported the lowest median worker wage among the companies with preliminary agreements. Half of the company's employees made less than $51,229 last year, while CEO Ganesh Moorthy made nearly $12.3 million. In response to sinking revenue, the company has put workers on unpaid furlough twice this year, first in March and again at the end of June. The board cut Moorthy's base salary by 20 percent for 2024. But salary makes up only a tiny share of the CEO's total compensation package. Last year, Moorthy pocketed $643,126 in salary, two cash bonuses totaling $2.9 million, and stock awards valued at $8.7 million. The firm also spent $946 million on stock buybacks in 2023, considerably more than the firm's $600 million outlay for capital expenditures.

CEO and Worker Compensation

(figures are from 2023 unless otherwise noted)

Companies with preliminary CHIPS agreements	CEO	CEO total compensation	Median worker pay (global workforce)	CEO-median worker pay ratio	Value of CEO stock holdings	Parent HQ
Intel	Patrick Gelsinger	$16,855,400	$100,100	168	$25,977,372	USA
TSMC Arizona*	C.C. Wei	$17,900,000	$71,443	276	$814,319,195	Taiwan
Samsung Electronics	J.H. Han	$4,976,324	$86,474	58	$832,800	South Korea
Micron Technology	Sanjay Mehrotra	$25,276,953	$54,570	463	$93,919,546	USA
Global Foundries	Thomas Caulfield	N/A	N/A	N/A	N/A	Cayman Islands
Microchip Technology	Ganesh Moorthy	$12,276,315	$51,229	240	$50,840,099	USA
Polar Semiconductor	Koji Hatano	N/A	N/A	N/A	N/A	USA
Absolics**	Chey Tae-won	N/A	N/A	N/A	$1,501,651,375	South Korea
Entegris	Bertrand Loy	$13,405,690	$70,128	191	$59,062,098	USA
BAE Systems	Charles Woodburn	$16,843,813	$88,187	191	$29,824,423	UK
Rocket Lab***	Peter Beck	$962,714	$62,233	15	$181,386,450	USA
TOTAL	-	-	-	-	$2,757,813,358	-
AVERAGE	-	$13,562,151	$73,046	200	$306,423,706	-

***subsidiary of Taiwan Semiconductor Manufacturing Company. ** subsidiary of SK Group. *** parent of SolAero Technologies**
Sources: Parent company proxy statements filed with the SEC, with the following exceptions: **TSMC**: SEC Form 20-F for 2023 CEO pay and annual sustainability report for 2022 worker pay and pay ratio. **Samsung**: Worker pay from annual corporate governance report (figure is average, not median) and CEO pay from annual report. **BAE Systems**: annual report.The Institute for Policy Studies conducted currency conversions as necessary and calculated the value of stock holdings using closing share prices on the date reported in each company's report to shareholders. For Absolics, the number of shares held by SK CEO Chey Tae-won was reported in the media.

NOTE: The Global Foundries Form 20-F states: "Under Cayman Islands law, we are not required to disclose compensation paid to our directors and executive officers on an individual basis and we have not otherwise publicly disclosed this information elsewhere." Polar Semiconductor is privately held and thus the company does not report compensation data to the SEC.

CHIPS Subsidy Contender: Analog Devices

U.S. chipmaker Analog Devices is reportedly seeking federal CHIPS subsidies and has already received financial support from the Oregon government to expand a factory in that state. Like many others in the industry, Analog has a history of massive spending on stock buybacks and executive pay. CEO Vincent Roche made $25.5 million in 2023 – 527 times as much as the firm's median worker pay. During the 2019-2023 period, the chipmaker spent $9 billion on stock buybacks and has more than $2 billion remaining in their board-authorized repurchase program.

Analog Devices CEO and worker compensation in 2023 ($)				
CEO	**CEO total compensation**	**Median worker pay (global workforce)**	**CEO-median worker pay ratio**	**Value of CEO stock holdings**
Vincent Roche	$25,543,635	$48,425	527	$82,752,641

Stock buybacks ($million)						
2023	**2022**	**2021**	**2020**	**2019**	**Total, 2019-2023**	**Remaining in share repurchase plan**
$2,964	$2,577	$2,605	$244	$613	$9,003	$2,130

More than 70 Analog Devices employees recently delivered a petition to top executives demanding better pay and working conditions. They pointed out that while workers were suffering unpaid shutdowns and delays of scheduled raises, the company had continued to reward executives and shareholders with billions in stock buyback spending. Among their key demands: a $27 minimum hourly wage, no unpaid shutdowns or forced vacations, and improved training for handling dangerous chemicals.

Background on the stock buyback provisions in CHIPS

The bipartisan CHIPS and Science Act, signed into law on August 9, 2022, forbids semiconductor subsidy recipients from spending CHIPS funds on stock buybacks or shareholder dividends. Since money is fungible, some Democratic lawmakers have urged the agency responsible for administering the program, the Department of Commerce, to go further to prevent CHIPS funds from enabling stock buybacks.

In a public webinar, Congressional Progressive Caucus Chair Pramila Jayapal recounted "deep and frequent negotiations" with Commerce Secretary Gina Raimondo, which started in July 2022, as the CHIPS Act was heading towards passage. These negotiations focused on ensuring that the new funds would go towards "an industrial strategy of revitalizing domestic manufacturing, creating good-paying American jobs, strengthening American supply chains, and accelerating the industries of the future rather than that money going directly into the pockets of CEOs and Wall Street traders," Jayapal explained.

Senator Elizabeth Warren has also initiated a series of letters to Secretary Raimondo urging stronger action on stock buybacks. "Without strict controls, we are concerned that CHIPS funding may result in a subsidy for additional buybacks, enriching executives and stockholders at taxpayers' expense while undermining the goals of the legislation," read one joint letter from Warren, Jayapal, and several other Democrats in October 2022.

Protecting taxpayers and "realizing the economic and national security objectives of the CHIPS Act will require the Department [of Commerce] to use its authority to ensure that CHIPS funds are not used to subsidize stock buybacks and shareholder distributions, whether directly or indirectly," read another joint letter from four senators and four House members.

In February 2023, Commerce released CHIPS subsidy criteria requiring all applicants to detail their intentions with respect to stock buybacks over five years and promising preferential treatment in the awarding of grants to firms that commit to refrain from all stock buybacks.

"This is about enhancing research and development in America," Raimondo explained in an interview. "The money should be used to expand in America, to out-innovate the rest of the world. Invest in R&D and your workforce, not in buybacks."

While encouraged by the Commerce Department's precedent-setting policy on buybacks, Jayapal cautioned that "it's going to be on us all collectively to make sure that this is the direction we continue to follow and that things don't start to fall through the cracks. That's all about implementation…We need to engage to make sure that public money is used for public good."

CHIPS provisions emerged out of growing criticism of stock buyback spending

Stock buybacks were largely considered unlawful stock market manipulation until 1982, when the Securities and Exchange Commission (SEC) created a massive safe harbor from liability. In recent years, particularly since the 2017 corporate tax cuts, buyback spending has exploded. S&P 500 firms alone spent $806 billion on buybacks in the first year after that tax reform, a massive jump from the $519 billion they spent repurchasing stock in 2017. While buybacks dipped in 2023 due to recession concerns, Goldman Sachs analysts expect a sharp uptick this year and a historic outlay of more than $1 trillion in 2025.

In the midst of this boom, buybacks have come under much greater scrutiny than ever before. Analysts have documented the association between buybacks and reduced capital investment and innovation, wage stagnation, and worker layoffs. In response, policymakers have pursued various mechanisms for discouraging this financial maneuver:

- The 2020 CARES Act imposed a temporary ban on stock buybacks on airlines and other companies receiving pandemic financial aid. This ban was part of a Payroll Support Program secured by aviation labor unions, along with anti-layoff protections and executive compensation restrictions that expired in September 2022.

- The 2022 Inflation Reduction Act introduced a 1 percent excise tax on the repurchase of corporate stock. President Biden has proposed quadrupling this excise tax and a Senate bill, the Stock Buyback Accountability Act (S. 413), would achieve this.

- In 2023, the SEC issued a new regulation requiring companies to provide much more detail about their buyback activity, including whether top executives bought or sold company shares during the four days before or after a buyback announcement. Even though designed to simply provide investors with basic information about this rampant yet opaque practice, the Fifth Circuit Court of Appeals struck down the rule following a Chamber of Commerce lawsuit. A bipartisan letter by Senators Tammy Baldwin and Marco Rubio calls on the SEC to re-propose the rule, as does a coalition letter that includes various labor unions as signatories.

- Biden has also included a proposal in his federal budget that would ban top executives from selling their personal stock for a multi-year period after a buyback, preventing CEOs from timing share repurchases to cash in personally on a short-term price pop they themselves artificially created. A Senate bill, the ALIGN Act (S. 790), would ban executives from selling their shares within a year of a stock buyback announcement.

- The Reward Work Act (HR 3694) would institute a general ban on stock buybacks in the open market, which would largely return us to the pre-1982 status quo.

Conclusion and recommendations

The CHIPS for America program is a key pillar of President Biden's economic agenda, along with the historic and complementary programs the administration is implementing through the Inflation Reduction Act and the Bipartisan Infrastructure Investment and Jobs Act to strengthen public infrastructure and accelerate the transition to a clean energy economy.

As the administration has stated, the goals of this economic plan are to "invest in America, stimulate private sector investment, create good-paying jobs, make more in the United States, and revitalize communities left behind."

The likelihood of achieving these goals will be far greater if corporations receiving public investment dollars shift away from the all-too-common focus on short-term payouts for top executives and wealthy shareholders and instead focus on building strong workforces and creating long-term value.

The administration has taken many important steps to use the power of the public purse to push corporations in this positive direction. For instance, President Biden lifted the wage floor for certain federal contract workers to $15 per hour. And he has ordered construction firms involved in large public infrastructure projects to negotiate collective agreements with their workers.

With regard to the CHIPS program, the administration took the important step of requiring corporations receiving more than $150 million in subsidies to submit plans to provide affordable, high-quality child care services for their manufacturing and construction workers. If effectively implemented, this will help reduce barriers to semiconductor jobs for people who are underrepresented in the sector, including women. Century Foundation experts have been monitoring companies in line to receive CHIPS grants and are seeing some hopeful signs that firms are engaging with communities to develop good plans for their employees without contributing to rising costs for other households.

Strong stock buyback restrictions on corporations receiving federal subsidies and contracts would reinforce the administration's economic agenda, since every dollar spent on buybacks is a dollar not spent on employee child care subsidies, worker wages and training, or innovation for long-term competitiveness.

The administration's decision to provide preferential treatment to CHIPS grantees that agree to forgo buybacks was a positive step. However, as Senator Warren, Representative Jayapal, and other members of Congress pointed out in a recent letter to Commerce Secretary Raimondo, the agency's guidance for grant applicants continues to "leave the door open for semiconductor companies to take millions or even billions in CHIPS grants, move some money around, and then engage in more stock buybacks."

To maximize the benefits of this program, the Department of Commerce should take advantage of its statutory authority to fully ban CHIPS grant recipients from engaging in stock buybacks as a condition of their awards. Agreements should also include strong accountability measures if grant recipients engage in stock buybacks in violation of the ban.

As semiconductor corporations have been competing for this funding in recent months, they appear to have been holding back on buyback activity – likely hoping to avoid drawing greater scrutiny of this wasteful practice. But if contracts do not include strong teeth to reinforce the administration's position, the buyback floodgates could open once again.

Co-authors:

Sarah Anderson, Global Economy Director and Inequality.org co-editor, Institute for Policy Studies.

Natalia Renta, Senior Policy Counsel, Corporate Governance and Power, Americans for Financial Reform Education Fund.

Research support: Oshin Pandey, Henry Wallace Fellow, Institute for Policy Studies.

Cover design: Sarah Gertler, Institute for Policy Studies.

Institute for Policy Studies

AFR EF Americans for Financial Reform Education Fund

The **Institute for Policy Studies** (IPS-DC.org), a multi-issue research center, has been conducting path-breaking research on executive compensation for nearly three decades. The IPS Inequality.org website (Inequality.org) provides an online portal into all things related to the income and wealth gaps that so divide us, in the United States and throughout the world**. Sign up for our weekly newsletter at: Inequality.org/subscribe.**

Americans for Financial Reform Education Fund (ourfinancialsecurity.org) is a nonpartisan, nonprofit coalition of more than 200 civil rights, community-based, consumer, labor, small business, and other groups. Formed in the wake of the 2008 crisis, we are working to lay the foundation for a strong, stable, and ethical financial system – one that serves the economy and the nation as a whole and contributes to shared prosperity for all families and communities.