

Human Circuits in Cold War Taiwan: The Radio Corporation of America, KMT Martial Law, and the Hidden Labor Behind Global Semiconductor Production

Ethan Chiu (ethan.chiu@yale.edu) | Yale University | Professor Arne Westad | 5 April 2026

Introduction

In 1978, an American researcher named Linda Gail Arrigo sat across from RCA's personnel manager at the company's Taoyuan plant in Taiwan. He candidly described how he had invoked martial law authority to suppress a factory strike, and how RCA had deliberately structured its wage package to push unwanted workers into quitting voluntarily. Arrigo documented these conditions in her field notebooks, which the Taiwan Garrison Command secret police soon seized. Arrigo eventually demanded her notebooks back. But the workers whose conditions she had documented, the tens of thousands of young women handling chlorinated solvents without adequate protection on twelve-hour shifts, would wait decades before anyone recorded their story. By then, thousands had developed breast, liver, cervical, colorectal, and ovarian cancers.¹

These events belong to a history that Taiwan's semiconductor historiography has consistently told as two separate stories. One takes place on the shop floor and in the dormitory. Semiconductor firms recruited young Taiwanese women from rural areas and placed them into export-oriented electronics production lines. They rewarded these young women for their speed, dexterity, and obedience. The other occurs in conference rooms and breakfast shops. Technocrats, engineers, and corporate interlocutors plotted Taiwan's leap from low-tech export manufacturing to high-tech semiconductor production, particularly through the 1976 Radio Corporation of America (RCA) Project.² Within Taiwan's semiconductor industry historiography, the second dimension of state strategy and technology transfer has too often eclipsed the first.

Contemporary discourse reinforces this imbalance. Government and policy narratives routinely foreground Taiwan's dominance in leading-edge manufacturing and the strategic significance of its firms. After all, Taiwan produces over 90% of the world's most advanced chips and over 60% of all semiconductor foundry revenue.³ Popular works like *Chip War* similarly privilege top-down technological development and capital investment.⁴

¹ Teng Sue-feng, "The Cancer Factory: RCA Workers Battle for Justice," trans. Newell Phil, with Chuang Kung-ju, *Taiwan Panorama Magazine*, October 2007, <http://www.taiwan-panorama.com/en/Articles/Details?Guid=8052bc95-3c3f-4e97-ae73-4c6ca9bedfaf&CatId=11&postname=The%20Cancer%20Factory%20Workers%20Battle%20for%20Justice>.

² Industrial Technology Research Institute, "The Birth of Taiwan's Semiconductor Industry," *ITRI Today*, Fall 2023, https://itritoday.itri.org/114/content/en/unit_01-2.html.

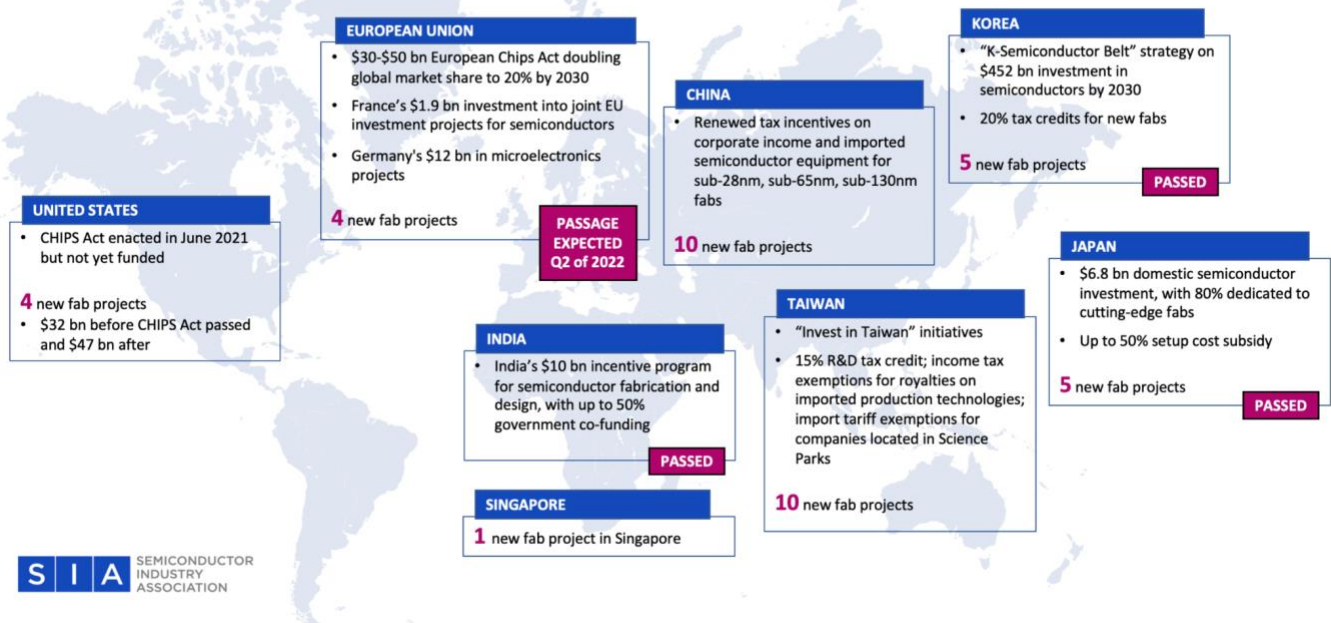
³ U.S. International Trade Administration, "Taiwan - Semiconductors Including Chip Design for AI," *Taiwan Country Commercial Guide*, December 1, 2025, <https://www.trade.gov/country-commercial-guides/taiwan-semiconductors-including-chip-design-ai>.

⁴ Chris Miller, *Chip War: The Fight for the World's Most Critical Technology* (Scribner, 2022).

Taiwan itself has an incentive to play into these narratives, given the acute risks it faces from a potential Chinese invasion. Many Taiwanese regard Taiwan’s chip industry as 保國聖山, “a sacred mountain that protects the country.”⁵ How then could the chip industry do anything wrong? Even if it did do wrong, are the benefits of addressing those wrongs enough to justify potentially risking Taiwan’s most important strategic point of leverage?

GLOBAL SEMICONDUCTOR FAB INVESTMENT ACTIVITIES

Of the 39 new fab projects announced globally in 2021, only 4 are in the U.S.



Global semiconductor fab investments announced in 2021.⁶ Every entry quantifies subsidies, tax credits, and fab counts, but none references labor conditions or occupational safety.

There is nothing inherently wrong with describing Taiwan’s semiconductor industry as strategically critical. But when such narratives become the default historiography, they risk reproducing a familiar erasure. The marginalized women and migrant workers who made the “strategic” sector possible disappear, and the authoritarian governance that oppressed them becomes invisible.

The scene that opens this paper illustrates what that erasure concealed. In the late 1960s, the authoritarian Kuomintang (KMT) regime invited RCA to build some of Taiwan’s first semiconductor assembly, testing, and packaging (ATP) facilities.⁷ The young women whom Arrigo encountered at RCA’s Taoyuan plant worked twelve-

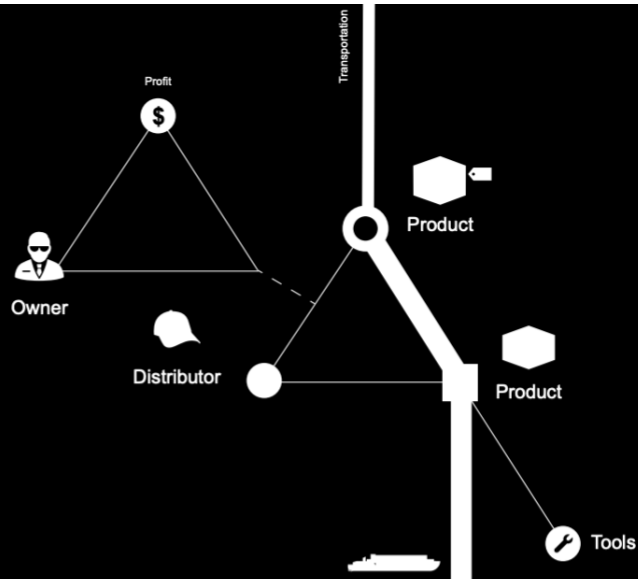
⁵ Chu-Chen Hsiao, “A Chip Odyssey,” CNEX Studio Corporation, 2025, <https://www.cnex.tw/achipodyssey>.

⁶ Sarah Ravi, *Global Semiconductor Incentives* (Semiconductor Industry Association, 2022).

⁷ Paul Jobin, “The Decades-Long Legal Struggle of Taiwanese Electronics Workers,” Equal Times, April 12, 2023, <https://www.equaltimes.org/the-decades-long-legal-struggle-of->; “ATP” is used in a historically expansive sense. ATP encompasses the labor-intensive back-end of electronics and semiconductor production. This includes electronics component assembly, integrated circuit packaging, and testing/quality control. Such tasks were, and often remain, labor-intensive despite front-end wafer fabrication becoming increasingly capital- and knowledge-intensive.

hour shifts handling chlorinated solvents like trichloroethylene, tetrachloroethylene, and trichloroethane without adequate ventilation or protective equipment. They lived in company dormitories enclosed behind checkpoints, often guarded by KMT military police. Their enterprise unions had no real independence. Decades later, thousands of these women developed cancers. The litigation that followed would expose not only the toxic contamination but also a systematic pattern of corporate evasion, manufactured scientific doubt, and regulatory complicity that the martial law regime had made possible.

Distributors



Assemblers

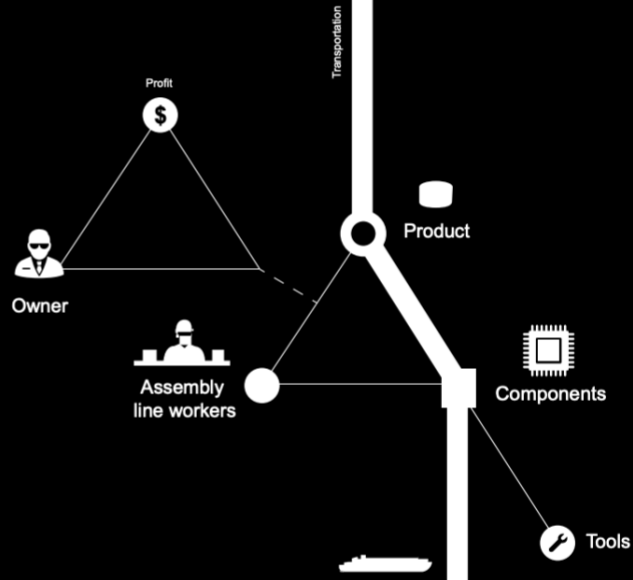
Issues

- Low paid labour
- Illegal working hours,
- Unfair compensation for unscheduled overtime
- Health and Safety issues
- Internship system exploitation
- Migrant workers rights
- Working conditions
- Crowded dorms for workers
- Workers health care programs

Hazards

Working

- Hazardous working conditions
- Explosions
- Hazardous chemical exposure
- Exposure to dust and toxic substances
- Inconsistent health and safety policies, procedures and practices
- Major depression and the risk of attempted suicide
- Ergonomic hazards : body positions, repetitive work, shift work, and job stress



Component manufacturers

Issues

- Toxic waste
- Health hazards

Hazards

Working

- Use of toxic materials such as arsine, phosphine and others potentially expose workers to health hazards which include cancer, miscarriages and birth defects.

Irritation of skin and respiratory organs

Neurotoxins

Low-frequency electronic magnetic and radiofrequency radiation

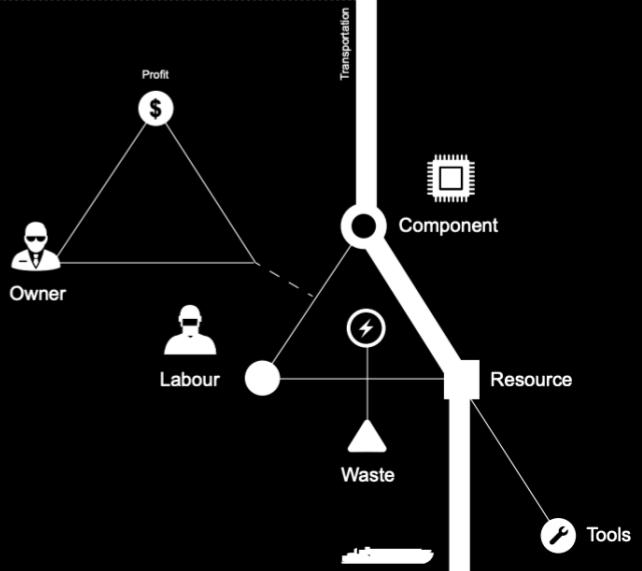
Ergonomic hazards : body positions, repetitive work, shift work, and job stress

Environmental

Use of hazardous chemicals including hydrochloric acid, toxic metals and gases, and volatile solvents.

Groundwater pollution

Air pollution
Toxic waste



Crawford and Joler's supply chain map lists "Issues" and "Hazards" for assemblers.⁸ These include illegal working hours, crowded dormitories, and hazardous chemical exposure, as summarized in the RCA-era conditions this paper reconstructs. That such hazards appear as standardized categories in a 2018 diagram, decades after RCA left Taiwan, reveals that these are structural features of the production model rather than historical anomalies.

This paper argues that these are not two separate stories about technological triumph and labor exploitation. They are a single history. The same institutional architecture that enabled the celebrated 1976 RCA technology transfer also governed the shop floors where women assembled transistors under coercive conditions. The same martial law apparatus that promised multinational firms "political stability" suppressed the worker organizing that might have revealed toxic hazards in real time. The nineteen engineers who trained at RCA's U.S. facilities and returned to build Taiwan's first integrated circuit demonstration factory did not work in isolation from the labor regime that recruited, housed, disciplined, and ultimately poisoned the women on RCA's production lines.⁹ They worked atop it.

Yet existing accounts consistently separate these dimensions. The technology transfer literature treats labor as a factor endowment. The labor history literature treats semiconductor upgrading as a separate institutional story. And Taiwan's transitional justice framework largely sidelines state-enabled corporate violence inflicted upon factory workers. Why has Taiwan's semiconductor historiography reproduced this separation? What did the KMT's martial law apparatus actually do inside export electronics factories not only to repress political dissent, but to shape the daily rhythms of recruitment, dormitory life, wage discipline, and occupational risk? And if the labor regime was not incidental to Taiwan's technological ascent but integral to it, what does that mean for the hundreds of billions of dollars that governments worldwide are now investing in semiconductor production under similar "national interest" framings?

Historiography and Methods

This divide reveals itself in existing scholarship. Linda Gail Arrigo's 1985 analysis of women workers in Taiwan's multinational electronics factories remains the most important contemporaneous account of how martial

⁸ Kate Crawford and Vladan Joler, "Anatomy of an AI System," AI Now Institute and Share Lab, September 7, 2018, <http://www.anatomyof.ai>.

⁹ "Labor regime" is used in a political economy sense. Labor regimes encompass not only worker wages and hours, but also worker recruitment, coercion, spatial governance (e.g., dormitories, workplace surveillance), legal architecture, and everyday discipline. These structures shape workers' bargaining power and socially distribute industrial risks. See Michael Burawoy, *Manufacturing Consent: Changes in the Labor Process Under Monopoly Capitalism* (University of Chicago Press, 1982), 198.

law shaped factory life.¹⁰ Based on late 1970s fieldwork, Arrigo linked piece-rate incentives, dormitory surveillance, and KMT military police to the broader structure of export-oriented industrial policy. But Arrigo was writing in real time. She could not trace the regime's toxic consequences, its legal afterlife, or its relationship to the semiconductor upgrading story that had barely begun. Paul Jobin's recent work addresses what Arrigo could not: the decades-long trauma of RCA's former workers, the epistemic violence of contested causation, and the psychological toll of protracted litigation.¹¹ Jobin explicitly connects RCA's offshoring to Taiwan's later semiconductor dominance. Yet his analysis, grounded in medical sociology, does not reconstruct the institutional machinery that made toxic exposure systematic rather than incidental. Together, Arrigo and Jobin supply this paper's two essential poles. What neither does, and what no existing work has attempted, is to show how the same martial law apparatus that enabled celebrated technology transfer also foreclosed the worker voices who might have identified occupational hazards in real time.

Three additional bodies of scholarship fill out the analytical frame. Ming-sho Ho's work on Leninist party-state control and labor federation politics documents how the KMT embedded its organizational apparatus within factories,¹² though Ho does not extend this analysis to occupational health outcomes or to the semiconductor upgrading narrative. Contemporary economic reports from institutions like the World Bank documented Taiwan's policy environment in real time, revealing the *de jure* incentives the KMT offered foreign investors.¹³ But their language of "political stability" and "cheap and industrious labour" naturalizes conditions this paper treats as objects of critical analysis. And Taiwan's transitional justice scholarship, traditionally focused on the White Terror's political killings and imprisonments,¹⁴ has not recognized how authoritarian infrastructure functioned as labor control within export factories. The suppression of worker agency under authoritarian corporatism constituted its own form of systemic harm, yet it maps onto none of the dominant transitional justice categories. The RCA case illustrates why labor regimes deserve recognition as a distinct site of transitional justice reckoning.

Theoretically, the paper draws on: developmental state theory to frame how the KMT courted and constrained industry,¹⁵ global value chain theory to examine how lead firms' standards shaped local labor

¹⁰ Linda Gail Arrigo, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty," *Contemporary Marxism* 11 (Fall 1985): 77–95.

¹¹ Paul Jobin, "Chemo-Anxiety and the Regimes of Toxicity," *BioSocieties* 20, no. 4 (2025): 704–23, <https://doi.org/10.1057/s41292-025-00357-2>.

¹² Ming-sho Ho, "Challenging State Corporatism: The Politics of Taiwan's Labor Federation Movement," *The China Journal* 56 (July 2006): 107–27, <https://doi.org/10.2307/20066188>.

¹³ International Bank for Reconstruction and Development et al., "Appraisal of China Development Corporation," World Bank, July 18, 1967,

<https://documents1.worldbank.org/curated/en/196701468341931784/pdf/multi0page.pdf>.

¹⁴ Department of Human Rights and Transitional Justice, "Transitional Justice in Taiwan (臺灣的轉型正義)," Executive Yuan, 2024.

¹⁵ Robert Wade, *Governing the Market* (Princeton University Press, 2003); Alice H. Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (Oxford University Press, 1992).

practices,¹⁶ labor process theory to interpret piece-rate discipline and manufacturing consent,¹⁷ feminist political economy to foreground gendered recruitment and dormitory governance,¹⁸ and postcolonial critical theory to interrogate how institutional frameworks exploit workers and their bodies.¹⁹ These frameworks guide the primary source analysis.

The paper's methodology relies extensively on primary sources that exist only because the regime's concealment was imperfect. A post-martial law Taipei District Court verdict concerning RCA Taiwan documents toxic solvent use, groundwater pollution, and differential access to safe drinking water.²⁰ Thirty-five semi-structured interviews from research trips to Taiwan, South Korea, and the Philippines in 2024 and 2025 provide direct recollections from former RCA workers, migrant laborers in contemporary ATP supply chains, lawyers, labor organizers, NGO supporters, and scholars. Collected oral history records further document factory labor norms in 1960s-1970s industrial Taiwan, highlighting long shifts, forced overtime, workplace deaths, and the absence of recourse.²¹

A final point concerns scale. Numerous multinational and domestic actors shaped Taiwan's ATP labor regime, but RCA is analytically central for two reasons. It was both a foundational company in Taiwan's semiconductor origin story and a source of toxic contamination whose legal afterlife produced unusually rich documentation. That documentation retroactively illuminates workplace practices otherwise concealed by corporate and martial law secrecy. RCA thus serves simultaneously as a case of authoritarian-era multinational offshoring and as a window into the broader characteristics of early ATP labor regimes.

Building the Institutional Preconditions for Electronics Export

Martial law fundamentally conditioned Taiwan's Cold War labor regime. During the White Terror period from 1947 to 1987, the KMT kept Taiwan under an official state of emergency, curtailing political rights, stifling opposition, and suspending many civil liberties.²² These included the regime's political killings, imprisonment, and torture of an estimated 140,000-200,000 dissidents, and broader persecution of ethnic Taiwanese intellectual

¹⁶ Gary Gereffi, *Global Value Chains and Development* (Cambridge University Press, 2018).

¹⁷ Harry Braverman, *Labor and Monopoly Capital* (Monthly Review Press, 1974); Burawoy, *Manufacturing Consent*.

¹⁸ Arrigo, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty."; Ping-Chun Hsiung, *Living Rooms as Factories: Class, Gender, and the Satellite Factory System in Taiwan* (Temple University Press, 1996); Lydia Kung, *Factory Women in Taiwan* (Columbia University Press, 1995).

¹⁹ Gayatri Chakravorty Spivak, "Can the Subaltern Speak?," in *Marxism and the Interpretation of Culture*, ed. Cary Nelson (University of Illinois Press, 1988), 66-111.; Paola Ricautre, "Ethics for the Majority World: AI and the Question of Violence at Scale," *Media, Culture & Society* 44, no. 4 (2022): 726-45, <https://doi.org/10.1177/01634437221099612>.

²⁰ Taoyuan County Original RCA Corporation Employees Caring Association vs. Radio Corporation of America, Taiwan of Taipei, Taiwan (English Translation) (Taipei District Court April 17, 2015), https://docs.google.com/document/d/1ZOdkr6dWvxiDjybelGPTdR_HLYTkmuhf/edit?usp=sharing&oid=110036895394720987088&rtpof=true&sd=true.

²¹ 沈德盛, "沈德盛先生訪問記錄," interview by 洪紹洋, July 26, 2023, https://drive.google.com/file/d/1KTqa0_w4aB2-YEAUB3384zjPuhhGSvW7/view?usp=sharing.

²² "White Terror Period," National Human Rights Museum, 2017, https://www.nhrm.gov.tw/w/nhrmEN/White_Terror_Period.

elites.²³ The KMT's rule extended into the workplace, where the authoritarian government effectively banned independent labor organizing and treated worker dissent as a communist security threat.²⁴ Even after martial law was lifted in 1987, the idea of "labor-capital harmony" continued to pervade Taiwanese politics.²⁵ But the labor regime that RCA and similar foreign firms would exploit did not emerge from martial law alone. It was built through a sequence of interlocking institutional developments: economic reforms designed to attract foreign capital, spatially bounded export zones that concentrated and governed production, a legal architecture that fragmented worker power, and a coercive security apparatus that backstopped the entire system.

Constructing the Investment Architecture

Taiwan's ATP labor regime did not come from "culture" or market pressures alone.²⁶ It arose from a martial law-era institutional environment built to facilitate export industrialization in the late 1950s and 1960s. Incentivized by promises of further U.S. aid and ambitions of integrating Taiwan into global manufacturing networks, Taiwan pursued market liberalization. By August 1960, KMT officials finalized a "Plan for Accelerated Development" that reduced tax burdens and removed industrial expansion constraints.²⁷ These policy changes, paired with currency devaluation, significantly increased export-focused foreign and domestic investment.

The KMT's reform package was comprehensive and deliberately sequenced.²⁸ Exchange-rate adjustments, tariff liberalization, and a 1960 investment statute offering tax incentives and foreign exchange entitlements collectively constructed what contemporary economists recognized as an explicitly FDI-oriented policy architecture. As Yu Ching Jao observed at the time, these measures were designed for the "encouragement of foreign investment,"²⁹ a framing that treated foreign capital not as a byproduct of growth but as growth's prerequisite. Export processing zones (EPZs) extended this logic spatially, bundling cheap land, infrastructure, and reduced bureaucracy into physically bounded zones optimized for multinational entry.

International development institutions reinforced this framing. A 1967 World Bank appraisal of the China Development Corporation catalogued Taiwan's investment incentives, including tax holidays, customs duty

²³ Eric Cheung et al., "Why a Decades-Old Deadly Crackdown on Democracy Is Becoming More Important for Taiwan Today," CNN, March 1, 2022, <https://www.cnn.com/2022/02/28/asia/taiwan-228-democracy-intl-hnk-dst>.

²⁴ Erin Jamison, Taiwan: Chiang Kai-Shek, The White Terror, Transitional Justice, and Transnational Repression, Fall 2022, <https://worldwithoutgenocide.org/genocides-and-conflicts/taiwan-chiang-kai-shek-the-white-terror-transitional-justice-and-transnational-repression>.

²⁵ Jui-ming Huang, "Fair Strikes Are a Worker's Right," Taipei Times, March 28, 2001, <https://www.taipeitimes.com/News/editorials/archives/2001/03/28/0000079403>.

²⁶ Frederic C. Deyo, *Beneath the Miracle: Labor Subordination in the New Asian Industrialism*, 1st ed. (University of California Press, 2003), 87-102.

²⁷ Douglas A. Irwin, "How Economic Ideas Led to Taiwan's Shift to Export Promotion in the 1950s," Working Paper no. 29298, Working Paper Series (National Bureau of Economic Research, September 2021), <https://doi.org/10.3386/w29298>.

²⁸ Wade's concept of the "governed market" captures how the KMT selectively directed credit, managed trade, and steered industrial investment rather than simply liberalizing. See Wade, *Governing the Market*, 27.

²⁹ Y. C. Jao, "Trade and Economic Development in Taiwan," *Intereconomics* 11, no. 6 (1976): 172-76, <https://doi.org/10.1007/BF02928962>.

deferrals, and duty-free import provisions. That same appraisal attributed the island's rapid growth to "political stability, appropriate Government policies, heavy American aid and the diligence of the economically active population."³⁰ The language is revealing less for what it describes than for what it normalizes. "Political stability" was a euphemism for institutionalized repression of labor militancy. The "ample reservoir of cheap and industrious labour" that the report credited with enabling export growth was not a natural endowment but a politically produced condition. The World Bank even quantified Taiwan's wage advantage over Japan and Hong Kong, treating as a comparative asset what was a managed suppression of labor's share. By rendering authoritarian labor control legible as technocratic inputs like "diligence," "industriousness," and "stability," such appraisals lent international institutional legitimacy to a development model whose profitability rested on foreclosing worker agency.

Two features of export electronics made this particularly consequential for labor regimes. First, ATP depended on large numbers of low-paid workers rapidly performing repetitive tasks, requiring not merely low wages but wage discipline. This required a workforce whose compensation could be held below productivity gains without triggering collective action. Second, the EPZ framework of processing imported materials for re-export meant that Taiwanese labor was the primary site of value creation within the zone. Yet the governance structure ensured workers captured the smallest share of that value. Cold War geopolitics, economic reform, and labor control thus converged in a single developmental logic that made Taiwan particularly attractive to foreign electronics firms due to its authoritarian labor structure.

Export orientation evolved from a purely economic idea into an administrative form. It required institutions capable of allocating foreign exchange, supporting industrial finance, and governing the boundaries between domestic and export sectors. When later Taiwanese semiconductor narratives celebrate institutions, they often highlight research and training organizations.³¹ But the earlier story of how the KMT built export-oriented industrial spaces and politically managed within them is equally important.

Export Processing Zones and the Spatialization of "Industrial Peace"

EPZs were one of the most consequential spatial tools within Taiwan's export strategy. KT Li, Taiwan's "godfather of technology,"³² visited the free port city of Trieste in 1962.³³ Soon after, Li opened one of the world's

³⁰ International Bank for Reconstruction and Development et al., "Appraisal of China Development Corporation."

³¹ Hsiao, "A Chip Odyssey."

³² Wolfgang Saxon, "Li Kwoh-Ting, 91, of Taiwan Dies; Led Effort to Transform Economy," *Business, The New York Times*, June 2, 2001, <https://www.nytimes.com/2001/06/02/business/li-kwoh-ting-91-of-taiwan-dies-led-effort-to-transform-economy.html>.

³³ Irwin, "How Economic Ideas Led to Taiwan's Shift to Export Promotion in the 1950s."

first EPZs in Kaohsiung in March 1965.³⁴ The Kaohsiung EPZ offered firms tax and duty exemptions alongside purpose-built infrastructure for electronics, precision machinery, and related sectors.³⁵

The Kaohsiung EPZ and its successors in Taoyuan, Taichung, and elsewhere by the early 1970s are typically narrated as investment promotion instruments.³⁶ But they were equally labor governance instruments, concentrating over 100,000 women at peak employment within physically bounded spaces where the state could regulate not only customs flows but human ones.³⁷ Some of these workers were underage girls who borrowed other people's ID cards to gain entry,³⁸ which would likely qualify as hazardous child labor given the long hours and chemical exposure.³⁹ The zones' physical architecture made this governance possible. EPZ gates, dormitories, and checkpoints did not merely facilitate customs administration. They enclosed a workforce whose mobility could be monitored and constrained. Police specifically classified EPZ employees as "special surveillance objects,"⁴⁰ a designation that collapsed the boundary between industrial management and security enforcement. Under such conditions, workers in electronics plants were pushed into extensive overtime and chronic toxic solvent exposure with little recourse.⁴¹ The EPZ administration's dual mandate compounded the problem. Because the same zone authorities that promoted foreign investment also adjudicated labor disputes,⁴² their intermediation systematically favored corporate interests over worker protections. The structural conflict of interest was severe enough that even Taiwan's Control Yuan, an independent government oversight body, criticized how EPZs simultaneously courted investment and ran their own labor inspection centers,⁴³ effectively asking the fox to audit the henhouse.

While global value chain scholarship highlights how lead firms govern production networks by setting supplier standards,⁴⁴ the KMT state itself helped Taiwan's EPZs institutionalize those requirements. The KMT state did not just invite multinationals, but it embedded their operational logic into local governance. The state was deeply responsive to and integrated with corporate priorities, yet it maintained just enough autonomy to enforce industrial

³⁴ "Unique Bonded Factory Zone at Kaohsiung Offers Many Special Benefits to Investors," Archives, *The New York Times*, January 20, 1967, <https://www.nytimes.com/1967/01/20/archives/unique-bonded-factory-zone-at-kaohsiung-offers-many-special.html>.

³⁵ "Building Taiwan's Global Brand: The Past and Future of Export Processing Zones," Taiwan Ministry of Foreign Affairs, July 4, 2022, <https://nsppe.mofa.gov.tw/nsppe/nsppe.mofa.gov.tw/nsppe/news.php?post=221703&unit=410&unitname=sties&postname=buildingtaiwan%E2%80%99sglobalbr:thepastfutureofexptprocessingzones>.

³⁶ Stephan Haggard and Yu Zheng, "Institutional Innovation and Investment in Taiwan: The Micro-Foundations of the Developmental State," *Business and Politics* 15, no. 4 (2013): 435–66, <https://doi.org/10.1515/bap-2012-0010>.

³⁷ Kuo Li-Chuan, "The Voice of Working People: Kaohsiung Museum of Labor," *Taiwan Panorama Magazine*, April 2010, <http://www.taiwan-panorama.com/en/Articles/Details?CatId=7&Guid=2c0e4aed-1be5-459b-8d06-6c73276616f1&postname=The+Voice+of+Working+People%3AKaohsiung+Museum+of+Labor>.

³⁸ 王謬政, "「她們的故事」紀錄女工歷史," *PeoPo*, January 23, 2009, <https://www.peopo.org/news/28101>.

³⁹ "Labor Standards Act," Law Source Retrieving System of Labor Laws And Regulations, Taiwan Ministry of Labor, July 31, 2024, <https://laws.mol.gov.tw/Eng/FLAWDAT0201.aspx?id=FL014930>.

⁴⁰ Yin-Yen Chang, "Taiwan as a Prison Island: Establishment and Operation of the Political Prisoner Monitoring System (1950-1990s)" (Master's Thesis, National Taiwan Normal University, 2023), <https://www.ntl.edu.tw/public/ntl/4216/%E7%A2%A9%E5%84%AA-%E5%BC%B5%E5%B0%B9%E5%9A%B4-%E5%85%A8%E6%96%87.pdf>.

⁴¹ Paul Jobin, "Hazards and Protest in the 'Green Silicon Island,'" *China Perspectives* 2010, no. 3 (2010), <https://doi.org/10.4000/chinaperspectives.5302>.

⁴² "EPZs: Ideal Industrial Climate," *Taiwan Panorama*, December 1980, <https://www.taiwan-panorama.com/en/Articles/Details?Guid=d974d0da-492d-4db4-9c3e-66cf8d8d67d&CatId=11&postname=EPZs%3A%20Ideal%20Industrial%20Climate>.

⁴³ 高涌誠 and 王幼玲, "新聞稿," 監察院全球資訊網, March 7, 2024, http://www.cy.gov.tw/News_Content.aspx?n=528&s=28502&Create=1.

⁴⁴ Gereffi, *Global Value Chains and Development*, 367.

priorities.⁴⁵ Taiwan's Ministry of Economic Affairs and EPZ authorities embodied this duality, being highly responsive to multinational investment and production requirements yet also steering firms toward export targets and technology transfer goals. While institutions like the World Bank narrated EPZs as technical policy innovations,⁴⁶ they also functioned as authoritarian governance laboratories. Within these zones, the authoritarian state could refine labor control mechanisms while maintaining a facade of modernization.

Corporatist Law and the Fragmentation of Worker Power

EPZs provided the spatial framework for Taiwan's labor regime, but the legal system provided its structural scaffolding. While labor unions formally existed, they were legally constrained in a corporatist manner that fragmented worker power while preserving a veneer of representation. Taiwan's Labor Union Law limited unions to individual plants and stipulated mandatory membership.⁴⁷ The law also required factories to have at least 30 workers for unionization and divided legal unions into categories that limited sectoral bargaining powers.⁴⁸ Industry-wide or independent unions, along with the right to strike, were banned outright. From 1947 until 1987, no legal strikes occurred in Taiwan, and KMT authorities swiftly crushed or defused any collective worker actions.⁴⁹ As a Taiwanese commentator put it, "Totalitarian rulers do not adhere to [the right to strike]. They regard strikes as rebellions to be suppressed. Taiwan's former regime was no exception."⁵⁰ Even within permitted single-factory unions, management or KMT loyalists often occupied leadership roles, earning these organizations the moniker 閹雞工會, "castrated chicken unions,"⁵¹ for their lack of real bargaining power. During the martial law era, unions served as "auxiliary institutions of industrial peace... [and] administrative arms of the government for the implementation of national policies." Some even helped the KMT mobilize workers to win sham elections.⁵²

Administrative mechanisms further constrained workers' voices. When ministries disagreed over worker protections, the Ministry of Economic Affairs' export promotion priorities often took precedence over labor reform. The Ministry of Interior sometimes made superficial gestures for "internal reform and protection of workers," suggesting that women workers should get mandatory breastfeeding time in 1978.⁵³ But in practice, these policies

⁴⁵ Peter B. Evans, *Embedded Autonomy: States and Industrial Transformation* (Princeton University Press, 1995), 57-59.

⁴⁶ International Bank for Reconstruction and Development et al., "Appraisal of China Development Corporation."

⁴⁷ Shyh-Jer Chen et al., "Changing Patterns of Industrial Relations in Taiwan," *Industrial Relations: A Journal of Economy and Society* 42, no. 3 (2003): 315-40, <https://doi.org/10.1111/1468-232X.t01-1-00294>.

⁴⁸ "Labor Union Act," Law Source Retrieving System of Labor Laws And Regulations, Taiwan Ministry of Labor, November 30, 2022, <https://laws.mol.gov.tw/Eng/FLAWDAT01.aspx?id=FL014918>.

⁴⁹ Jane Kaufman Winn, "There Are No Strikes in Taiwan: An Analysis of Labor Law in the Republic of China on Taiwan," *Maryland Journal of International Law* 12, no. 1 (1987): 35-63.

⁵⁰ Huang, "Fair Strikes Are a Worker's Right."

⁵¹ Huang, "Fair Strikes Are a Worker's Right."

⁵² Chen et al., "Changing Patterns of Industrial Relations in Taiwan."

⁵³ Arriago, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty."

would hardly help Taiwan's largely unmarried young factory women. The KMT even set up a special organ within the Ministry of Economic Affairs to arbitrate foreign corporate disputes separately from public litigation within the Ministry of Justice, making labor disputes less visible and publicly contestable.⁵⁴ Single enterprise unionism thus fragmented worker power, while administrative channels diverted grievances from public arenas where they might have gained traction.

Leninist Discipline on the Shop Floor

To implement their labor control regime, the KMT ironically built a Leninist party-state apparatus in workplaces.⁵⁵ Despite their purported opposition to communism, the KMT's Bureau of Labor and the official Chinese Federation of Labor embedded KMT party cell representatives and secret police within large factories.⁵⁶ These secret police officers from the Taiwan Garrison Command served as 安全室主任, "chief of security."⁵⁷ Such extrajudicial processes surveilled and quelled unrest often before worker organizing efforts became public. Workers were expected to resolve grievances through state-approved channels, if at all. For example, a worker might complain to a company welfare officer or at a labor-management meeting, but these mechanisms had no real power independent of management. Any attempt to organize outside the official structure risked severe punishment. The KMT brutally killed all who tried to form independent committees or protest. After all, on February 28, 1947 alone, the KMT killed up to 28,000 Taiwanese over a government tobacco monopoly dispute.⁵⁸ This repression extended to dissenting foreign academics and journalists as well, some of whom the KMT even murdered extraterritorially.⁵⁹

The state's enforcement of occupational safety and health regulations followed the same logic of performative governance. Martial law allowed foreign firms like RCA to draw on a remarkably compliant workforce. The legal architecture constrained workers *de jure*. The enforcement and security apparatus ensured their *de facto* subordination.⁶⁰ Even after Taiwan enacted its first weak industrial labor code, the government "did not strongly require employers to comply," so even state-owned enterprises often failed to correct violations.⁶¹

⁵⁴ Arrigo, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty."

⁵⁵ Ming-sho Ho, "The Rise and Fall of Leninist Control in Taiwan's Industry," *The China Quarterly* 189 (March 2007): 162–79, <https://doi.org/10.1017/S0305741006000853>.

⁵⁶ Ho, "Challenging State Corporatism."

⁵⁷ "Interview with Professor Chen Hsin-Hsiang," interview by Ethan Chiu, December 2025, In person, Shih Hsin University.

⁵⁸ Michael Forsythe, "Taiwan Turns Light on 1947 Slaughter by Chiang Kai-Shek's Troops," *World*, *The New York Times*, July 14, 2015, <https://www.nytimes.com/2015/07/15/world/asia/taiwan-turns-light-on-1947-slaughter-by-chiang-kai-sheks-troops.html>.

⁵⁹ Jason Pan, "Documents on White Terror Era Released," *Taipei Times*, February 22, 2021, <https://www.taipetimes.com/News/taiwan/archives/2021/02/22/2003752653>.

⁶⁰ John Minns and Robert Tierney, "The Labour Movement in Taiwan," *History Cooperative*, September 21, 2004, <https://historycooperative.org/journal/the-labour-movement-in-taiwan/>.

⁶¹ 何明修, "70 與 80 年代臺灣的勞工運動與環境運動," 蔣經國總統資料庫 國史館, December 2021, <https://presidentialcckc.dnh.gov.tw/article.php?access=PATA00046%2Fd0dbb649>.

Only crisis compelled the KMT to legislate. In 1972, roughly a dozen workers at a Philco plant in Tamsui, which assembled electronic components for Ford, died agonizing deaths from liver diseases caused by inhaling industrial poisons.⁶² The incident compelled the KMT to enact the 1974 Labor Safety and Health Act,⁶³ Taiwan's first major occupational safety statute. Yet penalties were so minimal that employers learned it was cheaper to ignore the law than to comply.⁶⁴ As RCA's own inspection record would later demonstrate, meaningful enforcement never followed.

In Taiwan's export electronics sector, "industrial peace" meant far more than the absence of strikes. It rested on interlocking mechanisms of spatial enclosure, legal fragmentation, administrative diversion, coercive surveillance, and performative regulation that together made refusal costly and collective action nearly impossible. Taiwan's industrial relations encompassed more than simply employer-worker relations. They were state-mediated relations designed to reduce publicity, delay resolution, and constrain the arenas in which workers could speak.

"If the Prosecutor is Too Annoying, We'll Just Change Him:" Factory Life in the 1960s

Oral histories from Taiwan's broader industrial milieu confirm that workers felt these institutional weaknesses on the factory floor. In an interview record, Shen Desheng recalls that in the 1960s, factory work often ran on a two-shift system from 8 a.m. to 8 p.m. and 8 p.m. to 8 a.m. Base wages were low, making overtime pay indispensable, and factories provided inadequate industrial safety protections. Given these circumstances, Shen recounts a fatal elevator accident that occurred under "normal" conditions. Then still a young manager, Shen personally held the bleeding worker and transported him to Mackay Hospital in a three-wheeled cargo cart. No ambulance came, and no emergency protocol existed. The company did not initially regard itself as responsible, and Shen recalls that "there was not yet labor consciousness and labor rights" at the time. Next, when a prosecutor arrived to investigate the safety failure, the managers said 檢察官如果太囉唆，就換一位，"If the prosecutor is too annoying, we'll just change him."⁶⁵ Capital was insulated not merely by weak enforcement or toothless statutes but by the capacity to override the judicial process itself.

If Shen's account illustrates how individual firms avoided regulatory scrutiny, Arrigo's account of a sit-down strike at General Instruments Taiwan reveals how the state enforced that impunity at scale. After the factory

⁶² National Museum of Taiwan History, "飛歌電子廠爆發女工中毒死亡事件," 臺灣女人, October 28, 2020, <https://women.nmth.gov.tw/?p=19999>.

⁶³ 林宜平, "死了幾位電子廠女工之後: 有機溶劑的健康風險爭議," 科技醫療與社會, no. 12 (April 2011): 61–112, <https://doi.org/10.6464/TJSSTM.201104.0061>.

⁶⁴ Winn, "There Are No Strikes in Taiwan: An Analysis of Labor Law in the Republic of China on Taiwan."

⁶⁵ 沈德盛, "沈德盛先生訪問記錄."

manager failed to issue a customary Autumn Festival bonus, thousands of Taiwanese workers sat idle and refused to work.⁶⁶ The American manager soon called the KMT military police to suppress the strike. Under martial law, leading labor disturbances was a capital crime. This episode illustrates that for multinationals, Taiwan's promise of "political stability" meant not only minimal protests, but also access to a state apparatus capable of quickly extinguishing emergent dissent.

These accounts are not specifically about RCA, but they establish the operative conditions in which RCA built its ATP labor regime. By the late 1960s, Taiwan's factory life was already characterized by long hours, minimal safety protections, and managerial authority reinforced by social hierarchy and state coercion. The authoritarian regime had legally scaffolded investment incentives, spatially concentrated export production zones, and cultivated the "stable" political environment that constrained collective bargaining. RCA is particularly significant not just in how it took advantage of these conditions, but also in how it navigated and consolidated them into durable labor structures that would outlast both the company and the martial law order. But before examining how RCA built that template on the shop floor, it is worth asking what drove a major American electronics firm to Taiwan in the first place. The answer lay not only in what Taiwan offered but in what the United States was losing.

U.S. Trade Policy, Geopolitics, and RCA's Turn to Taiwan

RCA's Taiwan expansion in the late 1960s emerged from U.S. trade policy, Cold War geopolitics, and domestic labor instability. These forces helped craft a transnational production network in which companies offloaded coercive labor discipline to authoritarian governments.

The U.S. tariff code's offshore assembly provisions were critical to this system. By allowing firms to export components for overseas assembly and pay reimport duties only on foreign value added, these provisions did not merely accommodate global production networks. They actively constructed them as economically rational.⁶⁷ By 1970, as U.S. Tariff Commission data confirm, substantial shares of American semiconductor imports by value had already entered under offshore assembly provisions,⁶⁸ evidence that production fragmentation was not a corporate improvisation but a legally structured outcome. Taiwan had become one of the principal destinations within this architecture, receiving U.S. components for assembly and shipping finished goods back under preferential duty

⁶⁶ Arrigo, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty."

⁶⁷ Robert C. Feenstra et al., "Offshore Assembly from the United States: Production Characteristics of the 9802 Program," in *The Impact of International Trade on Wages* (University of Chicago Press, 2000), <https://www.nber.org/books-and-chapters/impact-international-trade-wages/offshore-assembly-united-states-production-characteristics-9802-program>.

⁶⁸ Glenn W. Sutton et al., "Capacitors and Semiconductors: Sprague Electric Company, North Adams, Mass. Report to the President on Investigation No. TEA-F-22 under Section 301(c)(1) of the Trade Expansion Act of 1962," TC Publication 394 (Washington, D.C.), May 1971.

treatment. Offshoring, in other words, was not simply something firms chose to do in response to wage differentials. It was embedded in trade law, statistical categories, and formal policy channels that made the dispersion of production across sovereign borders a codified feature of American industrial strategy.

Such U.S. policy architecture complicates narratives that reduce offshoring simply to cheap foreign labor. Cost differentials mattered, but they operated within legal and tariff infrastructures that made global assembly legible and profitable. Successive rounds of GATT negotiations reinforced these dynamics. The Kennedy Round in the 1960s and the Tokyo Round in the 1970s lowered trade barriers on finished electronics,⁶⁹ further incentivizing U.S. firms to shift labor-intensive assembly to locations where they could arbitrage wage differentials against tariff reductions.

Domestic conditions sharpened these incentives. U.S. electronics manufacturing wages rose nearly ten percent per year through the 1970s⁷⁰ and the politics of labor recruitment grew increasingly contentious. American chip firms had experimented with recruiting feminized and racialized workforces that they thought were inherently suited to delicate assembly. But this framing fell apart when workers organized. The American Indian Movement's occupation and shutdown of Fairchild's Navajo reservation plant illustrated how U.S. production sites were vulnerable to political disruption.⁷¹ Thus, electronics companies relocated their facilities offshore to places with "political stability," lower wages, and less militant workers. For RCA specifically, this began first by hiring Eastern European immigrants in Camden, New Jersey, followed by Scotch-Irish Americans in rural Indiana, then African Americans in Memphis.⁷² Only after RCA had exhausted "desirable" sources of labor in the United States did it offshore to places like Mexico and Taiwan.⁷³

Underwritten by authoritarian governance, Taiwan offered such stability. The U.S. government actively encouraged offshoring to Taiwan. As the KMT regime was representative of "Free China," significant American aid already went to Taiwan. Private American investment would further serve U.S. Cold War priorities by stabilizing Taiwan's anti-communist regime through export-led growth.⁷⁴ Therefore, American aid officials and Taiwanese planners collaborated to establish export processing zones and attract U.S. firms. Declassified U.S.

⁶⁹ David Kageenu, "GATT Trade Agreements Rounds – 1960s to 1970s," *Fie-Consult*, October 19, 2022, <https://fieconsult.com/gatt-trade-agreements-rounds-1960s-to-1970s/>.

⁷⁰ Drew DeSilver, "For Most U.S. Workers, Real Wages Have Barely Budged in Decades," *Pew Research Center*, August 7, 2018, <https://www.pewresearch.org/short-reads/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/>.

⁷¹ Lisa Nakamura, "Indigenous Circuits: Navajo Women and the Racialization of Early Electronic Manufacture," *American Quarterly* 66, no. 4 (2014): 919–41, <https://doi.org/10.1353/aq.2014.0070>.

⁷² Jefferson Cowie, *Capital Moves: RCA's Seventy-Year Quest for Cheap Labor* (Cornell University Press, 1999), 2.

⁷³ Nakamura, "Indigenous Circuits."

⁷⁴ "How the United States Provides Foreign Aid: A Brief History of U.S. Foreign Aid," Council on Foreign Relations, April 25, 2025, <https://education.cfr.org/learn/learning-journey/how-united-states-provides-foreign-aid/a-brief-history-of-us-foreign-aid>.

cables confirm Washington's interest in Taiwan's EPZ experiment as a replicable model.⁷⁵ For firms like RCA, Taiwan's appeal lay not only in low wages or export incentives, but also in a U.S.-backed authoritarian KMT regime that reduced labor disruption risk.

RCA's Labor Regime on the Shop Floor

Authoritarian labor laws and export-oriented institutions established the preconditions for Taiwan's electronics labor regime, but they did not by themselves produce it. The regime took shape on the shop floor, where RCA and similar multinationals translated martial law's structural advantages into specific managerial practices. Understanding how requires moving across three registers of control. The first is spatial and demographic, shaping who was recruited, how workers were housed, and how physical arrangements extended managerial authority beyond the production line. The second is economic and organizational, revealing how wage structures individualized compliance while corporatist unionism precluded collective resistance. The third is epistemic, unveiling how the regulatory and security apparatus conducted performative oversight while systematically preventing both internal and external accountability. These simultaneous registers produced a broader disciplinary architecture. RCA's Taiwan operations are particularly revealing because of RCA's foundational role in Taiwan's semiconductor story and its unusually rich evidentiary record that illuminates practices the regime tried to conceal.

Dormitories, Checkpoints, and the Gendered Workforce

Managers controlled almost all aspects of workers' lives, spanning recruitment, training, housing, incentives, and time management. Employers consciously used martial law to secure control over the factory workforce. Arrigo details how unions, media, military police, and personnel office hierarchies facilitated such control.⁷⁶

Gender was a key element of managerial recruitment. RCA specifically sought young women, valued across the export electronics sector for their supposed dexterity and docility.⁷⁷ However, Taiwan's particular configuration was shaped by migration, dormitories, and authoritarian labor governance, evolving into an ATP labor regime with distinct disciplinary mechanisms.

⁷⁵ Embassy of the United States to the Republic of China, *ROC Assistance to Liberia for Sugar Refinery and Agriculture*, WikiLeaks Public Library of US Diplomacy 1973TAIPEI01817_b (Taipei City, Taiwan, 1973), https://wikileaks.org/plusd/cables/1973TAIPEI01817_b.html.

⁷⁶ Arrigo, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty."

⁷⁷ Nakamura, "Indigenous Circuits."; Jobin, "Chemo-Anxiety and the Regimes of Toxicity."

Gendered recruitment intersected with family and rural-urban migration patterns. Patriarchal family structure often permeated factory women's lives. Although young factory women typically worked temporarily before marriage, their earnings played a crucial role in sustaining family livelihoods and financing the education of younger siblings.⁷⁸ Such temporality reduced the likelihood that these factory women would organize and bolstered managerial power over a constantly rotating workforce. Many young women who got jobs at one of RCA's "model factories" were often privileged 外省人, "waishengren/mainlanders," who fled with the KMT and considered themselves lucky.⁷⁹ KMT-affiliated youth programs had conditioned them to follow authority. If anyone stepped out of line, covert agents, informants, or police would quickly harass or blacklist her.⁸⁰

Dormitories extended managerial control beyond the factory confines. Managers misleadingly narrated dormitory housing as a benevolent employee "benefit." Arrigo initially describes the RCA dormitories as "model" facilities with airy halls, clean bathrooms, and house mothers.⁸¹ But this welfare "perk" disguised constant surveillance, curfew enforcement, and social control. The dormitories were "enclosed in a compound next to the factory, with a single gate and checkpoint [often guarded by KMT military police] where all must sign in and out."⁸² Given their low wages, many women workers had scarce alternative urban housing options. Panoptical dormitories thus became factory extensions, allowing managers to secure punctuality, normalize long shifts, constrain collective organizing, and continue supervising workers. Managers justified dormitories through paternalistic rhetoric of "care" and protection of women's virtue.⁸³ The "meager dormitory environment and lack of privacy" became a severe strain over time.⁸⁴

State and corporate actors also presented the factory-dormitory complex as an extension of the family and school, summed up in the slogan 以廠為家, 以廠為校, "take the factory as your home, the factory as your school."⁸⁵ This ideology treated factory women as those in need of discipline and uplift, legitimizing their tight regulation in company housing.⁸⁶ Materially, these measures served to limit factory women's autonomy. The KMT's ideology of moral order dovetailed neatly with employers' need for a disciplined, trouble-free labor force.

⁷⁸ Arrigo, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty."

⁷⁹ "Interview 2 with Former RCA Women Factory Workers," interview by Ethan Chiu, January 2026, 2, In person, Taiwan Association for Victims of Occupational Injuries/Taoyuan.

⁸⁰ Yu-fu Chen et al., "FEATURE: Commission Outlines Past KMT Spying on Students," Taipei Times, May 20, 2019, <https://www.taipetimes.com/News/taiwan/archives/2019/05/20/2003715465>.

⁸¹ Arrigo, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty."

⁸² "Interview 2 with Former RCA Women Factory Workers," 2.

⁸³ Kung, *Factory Women in Taiwan*, 69.

⁸⁴ Arrigo, "Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty."

⁸⁵ 陳信行, "打造第一個全球裝配線: 台灣通用器材公司與城鄉移民, 1964-1990," Bulletin of Labour Research No. 20 (July 2006), [https://s3.us-west-1.amazonaws.com/p-](https://s3.us-west-1.amazonaws.com/p-library/books/db3830458c22aaca55febffd26d181ef.pdf)

[library/books/db3830458c22aaca55febffd26d181ef.pdf](https://s3.us-west-1.amazonaws.com/p-library/books/db3830458c22aaca55febffd26d181ef.pdf).

⁸⁶ Hsiung demonstrates how Taiwan's factory dormitory system collapsed domestic and industrial space, making women's "homes" into sites of production discipline. See Hsiung, *Living Rooms as Factories*, 119-128.



A Taiwan factory dormitory during Arrigo's late-1970s fieldwork.⁸⁷ Bunk beds at close quarters with no partitions and a single entry point made every occupant visible to house mothers and security officers.

But the “model” dormitory benefits were temporary. Following the 1974 oil crisis, multinationals shifted toward cheaper, more provisional dormitory arrangements.⁸⁸ Having already established a framework of residential control and surveillance, managers cut back on the expensive benefits while retaining the disciplinary infrastructure.

Wage Design as Coercion

Managers did not merely rely on walls. They also converted wage structures into instruments of compliance and punishment. Managers often attached substantial “bonuses” to base wages, which workers forfeited for “offenses” like being five minutes late, taking sick leave, or refusing overtime.⁸⁹ Because overtime pay was calculated on the no-bonus base wage alone, the effective overtime rate was far lower than the multiplier implied. Further piece-rate pay frameworks, along with speed and quality output targets, allowed RCA managers to exploit

⁸⁷ “Interview with Professor Linda Gail Arrigo,” interview by Ethan Chiu, December 2025, In person, Shih Hsin University.

⁸⁸ Arrigo, “Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty.”

⁸⁹ Arrigo, “Economic and Political Control of Women Workers in Multinational Electronics Factories in Taiwan: Martial Law Coercion and World Market Uncertainty.”

workers without overtly appearing coercive. This is where labor process theory is particularly applicable.⁹⁰ Gamified production, quotas, and performance pay bonuses enabled workers to discipline themselves.

An RCA personnel manager even explicitly admitted to Arrigo that he had invoked martial law authority to suppress a factory strike.⁹¹ The manager also proudly described how RCA deliberately designed its wage package to coerce overtime compliance. If workers refused overtime, the resulting pay reduction was structured to “piss the workers off” enough that they would quit voluntarily. This psychological manipulation served a precise fiscal purpose. By inducing voluntary departures rather than issuing dismissals, RCA avoided paying severance and could arbitrarily lower its labor costs by approximately six percent.⁹² The manager’s candor transforms the structural account of state-corporate alignment into a documented management strategy in which martial law authority and wage design operated as complementary instruments to optimize labor cost.

Wage structures that individualized punishment and reward also fragmented solidarity, particularly when combined with dormitory governance that isolated workers from family and subjected them to surveillance. With collective action foreclosed, workers’ primary coping strategies tended toward keeping bonuses, individual bargaining, quitting, or other informal tactics rather than collective disruption. When individual grievances did surface, often regarding excessive overtime or harsh dorm rules, they usually led to minor concessions or dismissal. Workers perceived as troublemakers were fired.⁹³ Such heavy-handed governance caused union and strike rates to remain very low even after they became legal following Taiwan’s democratic transition.⁹⁴

Rather than serve workers, RCA’s enterprise union furthered this corporatist control. One particularly telling anecdote concerns RCA workers discovering that their managers deducted union dues from their already low wages. Several women subsequently submitted their resignations, prompting an American manager to respond, “You want to organize a union, not me.”⁹⁵ The exchange demonstrates that unions could categorically exist but remain opaque and imposed upon workers, revealing the precise condition of enterprise-level unionism under authoritarian corporatist frameworks. In interviews decades later, former RCA workers recall that during the 1970s,

⁹⁰ Braverman, *Labor and Monopoly Capital*, 62.

⁹¹ “Interview with Professor Linda Gail Arrigo.”

⁹² “Interview with Professor Linda Gail Arrigo.”

⁹³ 賴建真, “Political Opposition and Labor Movement in Taiwan in the 1980s: A Study of the Taiwan Labor Legal Support Association during 1982-1989” (National Chengchi University, 2012), https://ah.lib.nccu.edu.tw/item?item_id=111458.

⁹⁴ Francesca Congju, “Organised Labour in Taiwan: The Main Issues and Data at Stake,” *Taiwan Insight*, October 17, 2019, <https://taiwaninsight.org/2019/10/17/organised-labour-in-taiwan-the-main-issues-and-data-at-stake/>.

⁹⁵ “Interview with Professor Chen Hsin-Hsiang.”

they could not speak up and that there were “not really” unions or support structures available.⁹⁶ One worker noted that she had to express discontent through RCA’s internal hierarchy “or face severe punishment.”⁹⁷

Performative Regulation and Knowledge Suppression

Beyond helping suppress labor movements, the KMT’s regulatory enforcement regime also served foreign capital. When RCA was later found to have repeatedly violated the Labor Safety and Health Act, the general manager was convicted but fined only NT\$6,000,⁹⁸ roughly US\$150.⁹⁹ The fine was so insignificant relative to the cost of compliance that it amounted not to deterrence, but to tacit permission.

The inspection record at RCA’s Taoyuan plant confirms this pattern of performative regulation. Between 1975 and 1991, government agencies conducted nine separate labor inspections at the facility, documenting a cumulative 53 violations.¹⁰⁰ These included failures to install local ventilation systems, to label toxic organic solvents, and to provide legally mandated health examinations for workers handling hazardous chemicals. Yet despite 16 years of documented noncompliance, no inspection resulted in meaningful remediation. The violations were recorded, filed, and left unaddressed. Inspections generated the administrative appearance of oversight, while the absence of enforcement allowed production to continue uninterrupted. For firms like RCA, the cost-benefit calculus was clear. Lax enforcement rendered regulatory compliance effectively optional so long as the firm met production targets and maintained political stability. RCA’s own management knew its groundwater was contaminated, purchased distilled water for its executives but not its workers, and repeatedly failed to remediate violations it had been formally notified of. These choices only made economic sense within a regulatory environment where noncompliance carried no real consequences.

The same logic of performative oversight extended to how the KMT suppressed external documentation. The U.S. Embassy told researchers like Arrigo to stop investigating labor conditions and engaging with the tangwai (anti-KMT opposition).¹⁰¹ Despite holding U.S. citizenship, Arrigo had her field notes on RCA factory conditions seized by the Taiwan Garrison Command secret police. Agents reviewed and stamped every page before returning the materials.

⁹⁶ “Interview 1 with Former RCA Women Factory Workers,” interview by Ethan Chiu, May 2024, In person, Taiwan Association for Victims of Occupational Injuries/Taipei.

⁹⁷ “Interview 1 with Former RCA Women Factory Workers.”

⁹⁸ “Interview with Professor Chen Hsin-Hsiang.”

⁹⁹ University of Pennsylvania, “Table Data - Exchange Rate to U.S. Dollar for Taiwan (1951-2010),” Federal Reserve Bank of St. Louis, 2:46 PM CDT,

<https://fred.stlouisfed.org/data/FXRATETWA618NUPN>.

¹⁰⁰ *Taoyuan County Original RCA Corporation Employees Caring Association vs. Radio Corporation of America, Taiwan of Taipei, Taiwan (English translation)*.

¹⁰¹ “Interview with Professor Linda Gail Arrigo.”

Sony/Kiwa

4,000 factories

Other 200-400
Dugout close to Umin + Chung
Soohyun - 500
PAC - 1727

GIT	9,000	1.	
RCA - Wanchu, Han, Han Chung Pa (= 韓)	8,200	2.	
Times 1975 1,800 → 1977 4,200	4,200	4.	
(Dai Nippon 4 = 4) <u>Yoshi</u> Wanchu	5,000	3.	
Zenith	2,000	6.	
Admiral	1,200	7.	
Amper	2,000	6.	
Texas I	1,200	2,000	5.
Digital	800	8.	
Philco - Zanussi	300-400	9.	
ITT	56,600		
Capeltronics - 300-400	25,000	女工	
Better - Samsung	290,300	30,000	女男
Arwin	1,200-1,400	7.	
TRW - Shulin	1,600	6.	
TWE - Grandchild Electronics (Quint)	1,200	7.	

Clinton - Chungfi
Johnson - 500
Oak - 300-400
Kotada - 300-400

USI

George

Keungsoo
Chungsoo

Japico -
Recruitment
Skiller assistance program
Government regulations
Grant - Aid for investors
Small Chinese companies - supply semi. parts.

Effective uses
Gov't always abetting to foreign companies that lots of
labor, high efficiency
← South Korea (political)

1974
Labor income efficiency.
Wage is too low for wages from basic living - treatment
American investors very afraid of information about
high pay, supervisor, secretary.

① think to
② communication
③ data
④ quality

Lean work. Salary Eng; Engineering Eng; skilled labor
Hourly Employment - assembler, operation, technicians
troubleshooter.

Security office (each 3-5)
RCA - each branch different wage structure
y double accounting - v3.
They are head of
each KHT branch
20-40% of salary work
in KHT.



*Arrigo's field notebook, seized and stamped page by page by Taiwan Garrison Command (seal visible, bottom left).*¹⁰² *Handwritten entries record company names (RCA, General Instruments, Texas Instruments), wage figures, and references to "double accounting."*

The suppression of labor discourse extended beyond individual researchers to academic institutions. In 1978, Arrigo helped organize a labor conference at Tunghai University at which RCA's personnel manager and other industry figures shared candid accounts of worker discontents and managerial strategies.¹⁰³ The department chairman intended to publish the proceedings, which would have constituted one of the few contemporaneous documentary records of multinational labor practices under martial law. But the publication never materialized. The government soon installed former Central Police University president Meiko Wong as the new Tunghai University president,¹⁰⁴ and the proceedings were buried. Arrigo herself was subsequently "shut out" by the same U.S. Embassy that had already urged her to cease her research. The episode reveals a layered architecture of knowledge suppression. The KMT's security apparatus reached directly into academic governance to neutralize potential criticism, while U.S. diplomatic institutions collaborated in silencing the researchers who documented the human costs of offshoring. The resulting archival silence is not a neutral absence of evidence. It is a produced gap, shaped by the same state-corporate alignment that operated on the shop floor.

Feminization, dormitory governance, enterprise unionism, and performative regulation enabled Taiwan's electronics export sector to maintain a stable labor supply, constrain bargaining, normalize intense work rhythms, and externalize occupational risk. RCA's Taiwan presence benefited from, and depended on, this hierarchy of discipline and risk distribution. The U.S. tariff regime, Cold War security posture, and Taiwan's managed labor force served as complementary infrastructures. The United States provided the legal pathway for fragmented production. Taiwan provided a politically disciplined and gendered workforce. And both states collaborated in ensuring that the conditions under which that workforce labored remained difficult to study, publish, or contest.

¹⁰² "Interview with Professor Linda Gail Arrigo."

¹⁰³ "Interview with Professor Linda Gail Arrigo."

¹⁰⁴ "Memorial Service for Former President Dr. Ko-Wang Mei," Tunghai University, April 6, 2016, http://eng.thu.edu.tw/web/news/news_detail.php?id=38.



Women assembling television components at an RCA Taiwan factory.¹⁰⁵ No gloves, masks, or ventilation hoods are visible. Originally published in Taiwan Panorama to project industrial modernity.

Yet to characterize RCA as simply an exploitative extractor would be as misleading as celebrating it solely as a modernization vector. RCA was both a pioneering foreign investor that helped Taiwan build its industrial base and a company whose labor control mechanisms and poor occupational safety practices left lasting physical and mental scars on its former employees. This duality is constitutive of how authoritarian developmental regimes legitimized themselves. The KMT's claim to legitimacy required economic modernization through modern facilities, increased exports, and employment. But maximizing profitability required RCA to control costs, discipline workers, and externalize risk. The canonical story of Taiwan's semiconductor ascent, centered on the 1976 RCA technology transfer project, was built atop this labor regime rather than apart from it.

The RCA Project and the “Technology Transfer” Labor Regime

Nineteen Engineers and a Founding Myth

Taiwan's semiconductor history is often structured around a shift from labor-intensive assembly to higher-value-added production in the mid-1970s, with the “RCA Project” functioning as its central milestone. The

¹⁰⁵ Teng, “The Cancer Factory.”

canonical account describes a four-year, roughly US\$10 million initiative led by Minister of Economic Affairs Sun Yun-suan to transfer RCA's chip technology to Taiwan.¹⁰⁶ A retrospective from Taiwan's state-run Industrial Technology Research Institute (ITRI) highlights a 1974 meeting at which seven men, including Sun and RCA Laboratories Director Pan Wen-yuan, planned out Taiwan's semiconductor industry development.¹⁰⁷ Two years later, ITRI signed a technology transfer and licensing contract with RCA. ITRI then sent 19 Taiwanese engineers to RCA facilities in the United States for intensive training in integrated circuit (IC) design and manufacturing at RCA's U.S. facilities. With their new operational expertise, they helped build Taiwan's first IC demonstration factory upon their 1977 return, whose 70% yield rate surpassed RCA's own yield of ~50% in New Jersey.¹⁰⁸ This successful technology transfer gave Taiwan the know-how to produce semiconductors, leading to Taiwan's first local chip company, United Microelectronics Corporation, being spun off in 1980. Yet as these men leveraged RCA's expertise to upgrade Taiwan's chipbuilding capabilities, they also learned, adapted, and scaled RCA's labor control regime to Taiwan's indigenous chip firms.¹⁰⁹ As these trainees went on to assume leadership roles in subsequent chip firms like TSMC, they brought RCA's techniques with them.

What the Pilot Line Required

But the pilot line's success depended on institutional conditions the canonical narrative leaves unexamined. Three specific dependencies make this concrete. First, the RCA Project's pilot IC fabrication line required a workforce already habituated to the exacting procedural discipline of electronics production. This work required contamination protocols, microscopic component handling, time-sequenced process steps, and quality inspection routines. That workforce did not materialize spontaneously. It was produced over the preceding decade through the KMT-RCA labor regime. The EPZ-based electronics sector, organized through feminized recruitment, piece-rate incentive systems, and dormitory governance, trained tens of thousands of young women in precisely these capacities. Their daily work assembling and testing transistors, capacitors, and television components under RCA and similar multinationals constituted a vast, informal training infrastructure in standardized precision manufacturing. When the 19 ITRI engineers returned from RCA's U.S. facilities in 1977, they did not build the demonstration factory alone. They staffed it with workers drawn from this existing labor pool, operators whose

¹⁰⁶ Alan Patterson, "RCA Taiwan Workers' Victory: Too Little, Too Late," *EE Times*, April 30, 2015, <https://www.eetimes.com/rca-taiwan-workers-victory-too-little-too-late/>.

¹⁰⁷ Industrial Technology Research Institute, "The Birth of Taiwan's Semiconductor Industry.": Amsden's framework of "late industrialization" emphasizes how states subsidized learning costs and disciplined firms to meet performance standards. The KMT's ITRI-RCA arrangement exemplifies this pattern. See Amsden, *Asia's Next Giant*, 8.

¹⁰⁸ Industrial Technology Research Institute, "The Birth of Taiwan's Semiconductor Industry."

¹⁰⁹ Hsiao, "A Chip Odyssey."

compliance with procedural standards had been shaped not by semiconductor-specific education but by years of managed factory discipline. The pilot line's celebrated 70% yield was thus not simply a triumph of transferred engineering knowledge. It also reflected the quality of a workforce whose precision and obedience had been institutionally produced through martial law labor structures.

Second, the RCA Project required political predictability across a multi-year timeline, a condition that technology transfer's substantial upfront costs and delayed returns make especially sensitive to disruption. RCA and the KMT state had to guarantee that training investments, intellectual property transfers, and pilot-line construction would not be jeopardized by labor conflict, political instability, or public controversy over working conditions.¹¹⁰ Authoritarian labor governance directly supplied this guarantee. The interlocking mechanisms of union control, security surveillance, and strike prohibition ensured that the labor disruptions, which had plagued RCA's domestic operations from Camden to Memphis to the Navajo reservation, were structurally precluded in Taiwan. This insulation from shop floor conflict constituted a subsidy to technology transfer that never appeared in fiscal accounts but was no less consequential for the RCA Project's success. It is difficult to imagine RCA committing proprietary IC manufacturing processes to a country where those processes might be interrupted by the very workforce executing them.

Third, the canonical narrative implicitly treats the RCA Project as an upward trajectory away from labor-intensive production toward a high-skill national economy, as though technology transfer and labor exploitation occupy different historical phases. But semiconductor production has never shed its dependence on labor-intensive ATP. Even as the ITRI pilot line demonstrated Taiwan's capacity for front-end wafer fabrication, the island's electronics sector continued to expand its back-end assembly, testing, and packaging operations. The RCA Project did not eliminate the need for a controlled, low-cost ATP workforce. It added a new layer of high-value production on top of it. The same institutional architecture that governed ATP, including EPZ spatial enclosure, dormitory housing, constrained unionization, and administrative mediation, continued to operate alongside and beneath the new semiconductor fabrication facilities. Indeed, as Taiwan spun off UMC in 1980 and later established TSMC, these firms replicated many of the managerial techniques their founders had absorbed during the RCA era. Those techniques encompassed not only IC process engineering but also the labor governance practices that had made

¹¹⁰ Chen et al., "Changing Patterns of Industrial Relations in Taiwan."

RCA's Taiwan operations profitable. The layered division of labor between capital-intensive fabrication and labor-intensive ATP was not a transitional phase but a structural feature of semiconductor production,¹¹¹ one that the RCA Project's institutional descendants inherited and perpetuated.

The RCA Project sat atop the labor regime, drawing on a disciplined workforce the regime had produced, a political stability the regime enforced, and a layered production structure the regime sustained. In turn, its success legitimized the very state-capital alignment that had made ATP exploitation profitable.

Afterlives: Toxicity, Litigation, and the Persistence of Managed Labor

What Democratization Made Contestable



The exterior of RCA's Taoyuan plant before closure.¹¹² The compound's controlled entry points regulated the movement of workers, materials, and information.

Taiwan's democratization, along with the growth of environmental and labor NGOs, shifted what could be publicly contested. Jobin's study of hazards and protest in Taiwan describes how rapid industrial development under

¹¹¹ Barney Warf, "New International Division of Labor," in *Encyclopedia of Geography* (Sage, 2020), <https://doi.org/10.4135/9781412939591.n814>.

¹¹² "Interview with Professor Linda Gail Arrigo."

authoritarian KMT rule was effectively a “slash and burn” policy, and it treats electronics hazards as emblematic of the paradox of “clean” industry.¹¹³ Dramatic catastrophes often affect public image much more than chronic pollution and health risks. The same study explicitly frames RCA’s Taoyuan plant pollution and worker cancers as part of the larger story of Taiwan’s electronics boom and the struggle for visibility. From this perspective, the RCA case illustrates how invisibility sustained earlier labor regimes. It also shows how coalitions of workers, activists, and experts have redefined the legal and scientific contestation of toxicity for a renewed labor struggle.¹¹⁴

RCA’s Toxic Legacy and Contested Causation

Structural labor violence is not always immediately visible. In electronics, chemical exposure is one of the most consequential and insidious forms. Throughout its decades of operation in Taiwan, RCA used chlorinated solvents like trichloroethylene (TCE), tetrachloroethylene (PCE), trichloroethane (TCA), and methylene chloride as degreasers and cleansers on its production lines.¹¹⁵ Workers absorbed these chemicals through inhalation, skin contact, and contaminated drinking water, while the solvents leached into surrounding soil and groundwater. These solvent concentrations exceeded legal limits, and the soil contamination reached extreme multiples of remediation standards. More than 80,000 workers, mostly young women, passed through RCA’s Taiwan factories during the three decades before the company shifted to water-based cleaning methods in the early 1990s.¹¹⁶ For the entirety of that period, the labor regime’s discipline, speed requirements, and dormitory containment kept production flowing without meaningful interruption or scrutiny.

¹¹³ Jobin, “Hazards and Protest in the ‘Green Silicon Island.’”

¹¹⁴ Hsin-Hsing Chen, “Field Report: Taiwan’s RCA Litigation and Its Multiple Outreaches: The Experience of an STS Community, 2011–2023,” *East Asian Science, Technology and Society: An International Journal* 17, no. 4 (2023): 494–520, <https://doi.org/10.1080/18752160.2023.2269019>.

¹¹⁵ *Taoyuan County Original RCA Corporation Employees Caring Association vs. Radio Corporation of America, Taiwan of Taipei, Taiwan* (English translation).

¹¹⁶ Jobin, “Chemo-Anxiety and the Regimes of Toxicity.”



A remediation notice at RCA's former Taoyuan site, photographed during the author's January 2026 field visit.¹¹⁷ The sign designates an active groundwater pollution remediation project, ongoing more than 30 years after RCA's closure in 1992.

RCA's handling of these hazards followed a pattern of substitution rather than elimination.¹¹⁸ TCE served as the main degreaser, later replaced by PCE, then by TCA. Each swap exchanged one toxic compound for another. The company knew its groundwater was contaminated and that activated carbon filters in shop floor drinking fountains could not remove hazardous pollutants. RCA purchased distilled water for management but not for "common workers." The industrial risk distribution thus mapped onto occupational hierarchies: workers bore significant toxic exposure while management insulated itself. Corporate paternalism and internal messaging in the RCA Home Magazine, the company's factory publication, celebrated welfare and modernity while obscuring such

¹¹⁷ "Interview 2 with Former RCA Women Factory Workers."

¹¹⁸ *Taoyuan County Original RCA Corporation Employees Caring Association vs. Radio Corporation of America, Taiwan of Taipei, Taiwan (English translation).*

risks.¹¹⁹ Interviews with former RCA women factory workers confirm that, at the time of their employment, they had no idea their workplace was contaminated.¹²⁰

Evidence of contamination first surfaced through an unlikely channel. Around the end of 1986, Taiwan's Investment Commission was notified that RCA's parent company had changed hands through a U.S. merger, transferring ownership to General Electric (GE).¹²¹ GE subsequently sold the operations to Thomson. Ironically, this corporate succession triggered the first pollution investigations, as environmental consulting firms conducted site contamination assessments as standard due diligence during mergers and acquisitions. Public evidence suggesting RCA had used toxic contaminants in its former factory therefore emerged at the very end of Taiwan's martial law era, three decades too late for many factory women.¹²² RCA's Taiwan factories closed in 1992, but the contamination they left behind was only beginning to become publicly visible.

The litigation that followed proved extraordinarily difficult. Former RCA workers filed suit in 2004, but proving disease causality decades after exposure posed immense evidentiary challenges.¹²³ RCA's Taiwan successors claimed that "we don't have anything at all—we have no data because everything was burned down,"¹²⁴ and the company itself no longer existed in its original form. Anticipating liability from the emerging pollution revelations, RCA Taiwan colluded with its parent entities, Technicolor and Thomson, to remit over NT\$3.2 billion, roughly US\$80 million,¹²⁵ in company assets to banks in France and other foreign jurisdictions between July 1998 and January 1999. The Taipei District Court later identified this transfer as a "fraudulent transfer of assets and malicious evasion of debt,"¹²⁶ deliberately designed to decrease the company's capitalization below its anticipated liabilities to the poisoned workers. The same transnational corporate architecture that facilitated offshore production was repurposed to offshore accountability. Global value chains, in this light, are not merely mechanisms for optimizing labor arbitrage but structures through which corporations can disaggregate legal liability across jurisdictions.

RCA's litigation strategy extended beyond jurisdictional complexity to actively manufacturing scientific doubt.¹²⁷ RCA's legal team retained an expert witness, Dr. Steve Lee, an oncological radiologist, to testify on

¹¹⁹ "Interview with Professor Chen Hsin-Hsiang."

¹²⁰ "Interview 1 with Former RCA Women Factory Workers," 1.

¹²¹ "Interview with Li Ai-Lun," interview by Ethan Chiu, December 2025, In person, Legal Aid Foundation Taiwan.

¹²² Jobin, "Chemo-Anxiety and the Regimes of Toxicity."

¹²³ Jobin, "Chemo-Anxiety and the Regimes of Toxicity."

¹²⁴ "Interview with Professor Chen Hsin-Hsiang."

¹²⁵ University of Pennsylvania, "Table Data - Exchange Rate to U.S. Dollar for Taiwan (1951-2010)."

¹²⁶ *Taoyuan County Original RCA Corporation Employees Caring Association vs. Radio Corporation of America, Taiwan of Taipei, Taiwan (English translation)*.

¹²⁷ *Taoyuan County Original RCA Corporation Employees Caring Association vs. Radio Corporation of America, Taiwan of Taipei, Taiwan (English translation)*.

causation. The court found Dr. Lee entirely unqualified in epidemiology and toxicology, the fields actually relevant to chemical exposure and disease. Despite the International Agency for Research on Cancer having already classified trichloroethylene as a Group 1 carcinogen, its highest designation, Dr. Lee claimed that RCA's operations did not cause the workers' cancers. The judges took the rare step of officially condemning his testimony as an "attempt to confuse and mislead" the court, made with the "obvious intention to deceive." The episode exemplifies how multinational corporations can weaponize credentialed expertise to gaslight sick workers within legal proceedings. What Jobin describes as "epistemic and psychological violence" operated here through a specific institutional mechanism.¹²⁸ RCA deployed a specialist whose credentials in one medical subfield lent superficial authority to claims that fell entirely outside his competence, thereby creating even more anxiety and trauma for the former RCA factory women. Workers denied independent safety information and a collective voice could not produce the contemporaneous exposure records that would have simplified causation decades later. The epistemic violence of the courtroom thus extended the epistemic closure of the shop floor. Despite hundreds of plaintiffs, multiple lawsuits, and a litigation process spanning well over a decade,¹²⁹ the former RCA workers ultimately secured compensation. This remarkable outcome only deepens in the context of deliberate corporate evasion.

After years of hearings, the Taipei District Court ruled in favor of hundreds of RCA worker-plaintiffs and ordered compensation on April 17, 2015, in what became Taiwan's first class-action labor lawsuit.¹³⁰ Court decisions from 2015 onward recognized multicausal links between the chemicals and diverse cancers and illnesses, culminating in a 2022 Supreme Court decision recognizing the psychological stress caused by past exposure.¹³¹ A Taiwan High Court ruling in January 2025 ordered further compensation.¹³² The RCA case forced courts to confront corporate liability for long-latency disease amid missing records and contested epidemiology. The legal struggle became bound up with martial law transitional justice debates over what it means to prove harm with decades-long causal chains.

¹²⁸ Jobin, "Chemo-Anxiety and the Regimes of Toxicity."

¹²⁹ "Interview with Li Ai-Lun."

¹³⁰ *Taoyuan County Original RCA Corporation Employees Caring Association vs. Radio Corporation of America, Taiwan of Taipei, Taiwan (English translation)*.

¹³¹ Jobin, "Chemo-Anxiety and the Regimes of Toxicity."

¹³² Business and Human Rights Centre, "Workplace Exposure to Toxic Chemicals Lawsuit (Re Taiwan)," February 7, 2025, <https://www.business-humanrights.org/en/latest-news/workplace-exposure-to-toxic-chemicals-lawsuit-re-taiwan/>.



Former RCA workers outside the Taipei District Court after the April 2015 ruling.¹³³ The banner reads 勝訴, “victory,” but the placards bear photographs of deceased former workers who did not survive the litigation.

The Transitional Justice Gap

Yet the transitional justice framework within which that legal struggle unfolded was not designed to accommodate cases like RCA’s. Taiwan’s post-democratization reckoning with the White Terror has overwhelmingly centered on discrete acts of state violence. These include the execution and imprisonment of political dissidents, the persecution of Taiwanese cultural and intellectual elites, and the ethnic dimensions of mainlander-dominated authoritarian rule. The 2018 Transitional Justice Commission focused on rehabilitating political victims, declassifying political archives, and removing authoritarian symbols.¹³⁴ These were necessary interventions. But they defined authoritarian harm primarily through a political persecution lens that renders labor suppression largely invisible.

¹³³ Han-Hsi “Indy” Liu and Fangchun Chu, “RCA Taiwan and Its Victims,” *New Bloom Magazine*, September 24, 2015, <https://newbloommag.net/2015/09/24/rca-taiwan-and-its-victims/>.

¹³⁴ Department of Human Rights and Transitional Justice, “Transitional Justice in Taiwan (臺灣的轉型正義).”

The RCA case exposes a category of martial law violence that does not fit this template. It was not a single act of state terror but a slow, cumulative, corporate-statist co-production. The state security apparatus enabled RCA to expose workers to toxic chemicals for decades. The specific underlying mechanisms include Garrison Command secret police quietly embedded in factories, corporatist unions that neutralized worker voice, and administrative mediation channels that shielded corporate liability from public scrutiny. But the women who absorbed chlorinated solvents on RCA's production lines were not political dissidents. They were workers whose capacity to identify, contest, or even understand occupational hazards was systematically foreclosed by the same authoritarian infrastructure that imprisoned democracy activists. Their cancers and chronic illnesses represent an embodied archive of martial law governance that conventional transitional justice categories struggle to recognize. The framework's categorical design reproduces the epistemic exclusion Spivak identifies.¹³⁵ The vocabulary of recognition structurally cannot accommodate cumulative, corporate-mediated, and embodied harm.

Compounding this analytical challenge, many police and military records concerning factory-level surveillance, labor informant networks, and corporate-security coordination remain classified or were destroyed during Taiwan's political transition.¹³⁶ Despite lifting martial law in 1987, the KMT only allowed direct presidential elections in 1996, giving them ample time to destroy evidence of their more insidious and less visible abuses.¹³⁷ The absence of these records is not simply an evidentiary gap, but it is itself a product of the regime's logic of concealment. Reconstructing how the secret police operated within export electronics factories thus requires archival triangulation. This paper thus combines surviving field notes seized and stamped by the Garrison Command, court documents produced decades later through litigation, oral histories from former workers and researchers, and corporate materials that inadvertently document workplace conditions. Such fragmentary reconstruction is methodologically imperfect, but it is the only available means to render visible a form of authoritarian harm that was designed to leave no trace.

Contemporary political dynamics further constrain accountability. The KMT, which administered the martial law apparatus documented throughout this paper, currently controls Taiwan's Legislative Yuan following its 2024 electoral gains.¹³⁸ The party that built the corporatist labor architecture, embedded secret police in factories,

¹³⁵ Spivak, "Can the Subaltern Speak?"

¹³⁶ Alice Su, "The Terrible Secrets of Taiwan's Stasi Files," *The Economist*, May 1, 2025, <https://www.economist.com/1843/2025/05/01/the-terrible-secrets-of-taiwans-stasi-files>.

¹³⁷ Office of the President, Taiwan, "Taiwan's Vibrant Democracy, Moving Forward with the World," 2026, <https://www.president.gov.tw/qrcode/19e>.

¹³⁸ John Dotson and Ben Levine, "The Outcomes of Taiwan's 2024 Legislative Elections," *Global Taiwan Institute*, January 24, 2024, <https://globaltaiwan.org/2024/01/the-outcomes-of-taiwans-2024-legislative-elections/>.

and cultivated “industrial peace” through systematic repression now holds the legislative power to shape transitional justice policy, declassification timelines, and labor reform. This institutional continuity helps explain why Taiwan’s transitional justice process has not extended to labor dimensions of authoritarian governance and why archival disclosure concerning factory-level surveillance remains limited. Reckoning with cases like RCA’s, where the state did not simply kill or imprison but co-produced with multinational capital an enduring regime of toxic exposure and labor exploitation, demands an expanded conception of what transitional justice in Taiwan should encompass.

For historians, the RCA litigation is not merely an epilogue. It reveals the hidden premises of earlier developmental narratives. When corporate statist structures disciplined workers through dormitory enclosure and constrained voice, they could neither identify nor contest toxic risks in real time. Toxicity was not a byproduct but a structured risk externalization, which the labor regime’s compliance architecture helped conceal. Decades later, coalitions of workers, activists, and experts carried that struggle into courts, epidemiological studies, and public campaigns, redefining the terms of contestation. Even today, under the auspices of the Taoyuan County Original RCA Corporation Employees Caring Association, former RCA factory women are fighting to clean RCA’s contaminated Taoyuan factory site and turn it into a workers' rights museum.¹³⁹



¹³⁹ "Interview 2 with Former RCA Women Factory Workers."

The author with former RCA workers and TAVOI organizers on the contaminated Taoyuan plant grounds, January 2026.¹⁴⁰ The banner advocates transforming the site into an “Industrial Tragedy Environmental Culture Education Park.”

RCA’s role, then, cannot be reduced to either “technology transfer” or “exploitation.” It was both an institutional partner in upgrading narratives and an exemplar of how export electronics production could be organized under authoritarian governance through feminized labor, limited voice, and risk externalization. These two dimensions operated simultaneously, not sequentially. Separating them, as existing historiography has done, reproduces analytically the very concealment that the martial law regime enforced politically.

Modern Continuities: The Labor Regime Beyond Martial Law

But if the labor regime reconstructed above was produced by specifically authoritarian conditions, then Taiwan’s democratization should have dismantled it. Martial law ended in 1987. Independent unions became legal. Direct presidential elections followed in 1996. The question is whether the regime’s institutional logic survived the political transformation that was supposed to render it obsolete.

The answer requires looking in two directions. First, within Taiwan, where Southeast Asian migrant laborers increasingly filled the ATP roles that young Taiwanese women had once occupied. Second, beyond Taiwan, where the broader geography of semiconductor manufacturing reproduced that production model. Tracing both dimensions shows that what the preceding sections documented is not an isolated historical episode, but a durable feature of how the semiconductor industry offloads risk onto its most vulnerable workers.

From Factory Women to Migrant Workers

The migrant workers who now fill these roles come primarily from the Philippines, Vietnam, Thailand, and Indonesia,¹⁴¹ though many more remain undocumented.¹⁴² Contemporary interview material illustrates this structural continuity. In 2024, a Filipino migrant worker at a TSMC supplier in Hsinchu described working a 12-hour evening shift rotation, six days per week, with employer-provided dormitory housing and monthly pay around NT\$35,000.¹⁴³ Yet due to Taiwanese “anti-fraud” laws,¹⁴⁴ a labor broker controls her bank account. The broker not

¹⁴⁰ “Interview 2 with Former RCA Women Factory Workers.”

¹⁴¹ Taiwan Ministry of Labor, “Foreign Workers in Taiwan by Industry and Nationality,” Taiwan Ministry of Labor Foreign Workers Statistics, February 2026, <https://statdb.mol.gov.tw/html/mon/c12040.htm>.

¹⁴² Michael Beltran, “In Taiwan, Migrants Flee Oppressive Workplaces for Life on the Periphery,” *Al Jazeera*, July 8, 2025, <https://www.aljazeera.com/economy/2025/7/8/in-taiwan-migrants-flee-oppressive-workplaces-for-life-on-the-periphery>.

¹⁴³ “Interview 1 with Migrant Worker in Taiwan,” interview by Ethan Chiu, May 2024, 1, in person.

¹⁴⁴ “Banks Instructed to Freeze ‘High-Risk’ Accounts of Departed Foreigners,” Taiwan Overseas Community Affairs Council, February 6, 2026, <https://www.ocac.gov.tw/OCAC/Eng/Pages/Detail.aspx?nodeid=329&pid=83455226>.

only directly deducts money from her already meager wages, but also prevents her from switching jobs and entraps her in Taiwan by confiscating her passport. Despite holding the same nominal labor rights as Taiwanese employees,¹⁴⁵ language barriers, broker intermediaries, broker/job-linked visas, and institutionalized discrimination erode her practical leverage. She relies on Catholic missionary groups and experienced migrants rather than official channels for support. Another migrant worker reports a similar 12-hour schedule with employer-provided dormitories and intermediary recruitment.¹⁴⁶ Since these tiny dormitories housed up to eight people in bunks, he chose external housing instead, but the broker still deducted dormitory fees from his account, effectively extracting broker fees despite Taiwan's *de jure* ban on them.¹⁴⁷ Even decades after RCA's departure, the regime's spatial governance, time discipline, and mediated labor mobility remain central to Taiwan's labor architecture within the semiconductor supply chain. Brokerage persists because it shifts recruitment, housing, documentation, and dispute management costs from employers onto workers.¹⁴⁸ Democratization did not abolish coercive labor discipline. It marketized it.

The COVID-19 pandemic starkly revealed how dormitory governance could intensify into outright confinement. When infections surged in 2021, the KMT-controlled¹⁴⁹ Miaoli County Government restricted migrant workers to traveling only between their dormitories and factories but allowed everyone else to travel freely, effectively imprisoning the very laborers sustaining global electronics supply chains.¹⁵⁰ Interviews with migrant worker support groups similarly reference those workers being "locked up" in dormitories during the pandemic period.¹⁵¹ When workers challenged these discriminatory restrictions, Miaoli's KMT magistrate said, "You tested positive, and even died because of the virus. Why talk about human rights now?"¹⁵² The statement distills the regime's operative logic into a single sentence: crisis justifies confinement, and the confined forfeit the right to contest their confinement. That Miaoli's order originated from a KMT-governed county underscores a direct institutional lineage. The party that constructed the corporatist labor architecture and EPZ governance apparatus

¹⁴⁵ Angela Ruoyi Pan, "A Story of Exclusion: Foreign Migrant Workers in Taiwan," *Cornell Journal of Law and Public Policy*, November 4, 2023, <https://publications.lawschool.cornell.edu/jlpp/2023/11/04/a-story-of-exclusion-foreign-migrant-workers-in-taiwan/>.

¹⁴⁶ "Interview 2 with Migrant Worker in Taiwan," interview by Ethan Chiu, May 2024, 2, In person.

¹⁴⁷ "Interview with Charles Niece," interview by Ethan Chiu, May 2024, In person, Maryknoll.

¹⁴⁸ Transparentem, *The Price of Work: A Brief on Widespread Migrant Worker Recruitment Fees in Taiwan's Manufacturing Sectors*, March 2025, <https://transparentem.org/report/taiwan-the-price-of-work/>.

¹⁴⁹ Kharis Templeman, "2018 Taiwan Local Elections: What Happened?," *Global Taiwan Institute*, November 28, 2018, <https://globaltaiwan.org/2018/11/2018-taiwan-local-elections-what-happened/>.

¹⁵⁰ Helen Davidson, "Taiwan Factory Forces Migrant Workers Back into Dormitories amid Covid Outbreak," World News, *The Guardian*, June 11, 2021, <https://www.theguardian.com/world/2021/jun/11/taiwan-factory-migrant-workers-dormitories-covid-outbreak>.

¹⁵¹ "Interview with Peter Nguyen Van Hung," interview by Ethan Chiu, May 2024, In person, Vietnamese Migrant Workers and Immigrants Office.

¹⁵² Amy Chang Chien and Amy Qin, "In Taiwan, Some Foreign Tech Workers Are Confined Indoors to Tackle an Outbreak.," World, *The New York Times*, August 4, 2021, <https://www.nytimes.com/2021/06/18/world/asia/taiwan-migrant-labor-covid.html>.

still administers the local labor inspection, mediation, and dormitory oversight machinery through which migrant workers must seek recourse across much of Taiwan.¹⁵³

Taiwan's ATP sector also commodifies women workers with striking similarities to RCA. At Compal Electronics, a major Apple and Google contractor, thousands of Vietnamese workers staged a protest against extreme overwork, illegal pay deductions, and inhumane policies.¹⁵⁴ Among the most severe was a rule stipulating that if a female worker became pregnant, she would be fined between US\$6,000 and US\$7,000,¹⁵⁵ a sum representing a whole year's wages.¹⁵⁶ The policy functioned as a bodily discipline mechanism, treating pregnancy not as a human right but as a breach of productive capacity warranting financial punishment. Where KMT-era managers justified dormitory surveillance through paternalistic rhetoric of protecting women's "virtue," contemporary subcontractors impose direct financial penalties on biological reproduction. In both cases, the corporate statist regime governs the female body as an instrument of production whose non-productive pregnancy, illness, and fatigue states constitute violations of the labor regime's terms. That such a policy could operate within the supply chain of the world's most valuable companies underscores how thoroughly the managed labor template has been institutionalized.

Like young Taiwanese factory women under martial law who lacked meaningful channels to contest their working conditions, migrant workers in Taiwan's semiconductor supply chain today lack the most basic instrument of democratic accountability: the vote. Non-citizen workers cannot participate in Taiwan's elections or even engage in any election-related work at any level,¹⁵⁷ rendering them invisible to the electoral calculations that might otherwise incentivize labor reform. Though formally entitled to join unions, broker-mediated employment, employer-tied visas, and deportation risk foreclose meaningful collective action in practice.¹⁵⁸ The workers most exposed to industrial risk thus possess the least political leverage, while the brokers and employers who benefit from the existing system remain institutionally organized. The formal guarantee of equal labor rights rings hollow when the workers who most need those protections cannot demand their enforcement.

¹⁵³ Taipei City Government Department of Labor, "The Rights and Obligations of Foreign Professionals Working in Taiwan," 文字、聲音、影像、新聞, June 23, 2025, https://english.bola.gov.taipei/News_Content.aspx?n=200A65ADB6AB7C9F&sms=5B794C46F3CDE718&s=A9CED4B6D69453AE.

¹⁵⁴ 吳睿騏, "仁寶電腦平鎮廠傳800越南移工罷工 勞資協調中," 中央社, June 2, 2020, <https://www.cna.com.tw/news/alog/202006020197.aspx>.

¹⁵⁵ "Interview with Peter Nguyen Van Hung."

¹⁵⁶ "Freedom of Association, Recruitment Fees and Migrant Workers: Snapshot of Taiwan," Electronics Watch, January 14, 2024, https://electronicswatch.org/en/freedom-of-association-recruitment-fees-and-migrant-workers-snapshot-of-taiwan_2640701.

¹⁵⁷ Keoni Everington, "Foreign Workers Warned of NTS1 Million Fine for Electioneering in Taiwan," Taiwan News, December 28, 2023, <https://taiwannews.com.tw/en/news/5067764>.

¹⁵⁸ Tseng Ping, "Brokers Accused of Blocking Migrant Workers from Joining Unions," 桃園市群眾服務協會, August 26, 2025, <https://www.spa.org.tw/article/476>.

Official discourse reveals how deeply instrumentalized migrant labor remains. In a February 2024 interview, Taiwan’s then-Labor Minister Hsu Ming-chun announced plans to recruit migrant workers from India’s northeast region, noting that people there “have similar skin color and diets like us,” are mostly Christian, and are “really good at sectors such as manufacturing.”¹⁵⁹ Such statements reduce prospective workers to a bundle of phenotypic, dietary, and religious attributes screened for managerial compatibility. As Nakamura demonstrates in her analysis of Fairchild Semiconductor’s recruitment of Navajo women,¹⁶⁰ this racialization retroactively endows whichever vulnerable population is cheapest and most captive with traits that naturalize their exploitation. Where Fairchild’s 1969 brochure recast Navajo weaving traditions as proof of innate circuit assembly aptitude, and where RCA valued young Taiwanese women for their presumed compliance, Hsu screens Indian workers for cultural proximity and sectoral aptitude. The state functions as a labor broker for industry, converting contingent labor market positioning into inherent cultural fitness.

The New Southbound Policy (NSP), President Tsai Ing-wen’s 2016 initiative to deepen Taiwan’s ties with Southeast and South Asian countries, institutionalizes this brokerage function at the level of foreign policy. Under the NSP’s industry-academia collaboration programs, thousands of Southeast Asian students have been recruited to Taiwanese universities only to spend their time working shifts in semiconductor and electronics factories, with brokers extracting fees and schools depending on student-worker revenue to stay solvent.¹⁶¹ The 2024 U.S. Trafficking in Persons Report found that traffickers exploited the NSP’s relaxed visa requirements to subject Southeast Asian students to forced labor,¹⁶² and Taiwan’s own National Human Rights Commission concluded that lax program oversight had enabled disguised labor importation.¹⁶³ That the DPP’s flagship diplomatic initiative reproduces the broker-mediated, aspiration-exploiting recruitment structure the KMT pioneered under martial law confirms that the labor regime’s logic has become bipartisan. Where the KMT recruited young rural Taiwanese women with promises of wages and urban mobility, the NSP recruits Southeast Asian students with promises of education. In both cases, intermediaries channel workers into semiconductor production roles under conditions that foreclose the very autonomy the initial promise implied.

¹⁵⁹ Diksha Madhok and Wayne Chang, “Taiwan Wants to Hire Indian Workers. What’s Skin Color or Religion Got to Do with It?,” CNN, March 5, 2024, <https://www.cnn.com/2024/03/05/business/taiwan-minister-apology-indian-skin-tones>.

¹⁶⁰ Nakamura, “Indigenous Circuits.”

¹⁶¹ Hsiuwen Liu, “Students Are Doubling as Cheap Labor for Taiwan’s Semiconductor Factories,” Rest of World, February 12, 2025, <https://restofworld.org/2025/taiwan-semiconductor-work-study-southeast-asian-students/>.

¹⁶² American Institute in Taiwan, *2024 Trafficking in Persons Report: Taiwan*, September 9, 2024, <https://www.ait.org.tw/2024-trafficking-in-persons-report-taiwan/>.

¹⁶³ 高華謙, “新南向產學專班亂象 人權會獻策5招護境外生權益,” 中央社 CNA, 台北, March 5, 2025, <https://www.cna.com.tw/news/aip/202503050370.aspx>.

Moreover, Taiwan's semiconductor industry interests often take precedence over those of migrant workers. Not only has Taiwan's semiconductor industry assumed existential "sacred mountain" national security significance,¹⁶⁴ but the industry is also one of Taiwan's largest sources of tax revenue.¹⁶⁵ Taiwan's semiconductor industry generated over \$165 billion in revenue in 2024,¹⁶⁶ representing approximately 20.7% of the country's GDP and 60% of total exports.¹⁶⁷ Migrant workers report that local labor authorities prioritize the chip industry's operational continuity over their concerns.¹⁶⁸ Semiconductor workers encounter a bureaucratic hierarchy in which complaints about hours, dormitory conditions, or broker abuses are weighed against the imperative not to disrupt chip production. This dynamic reproduces, under democratic auspices, the structural logic of the KMT's EPZ administrations. Investment promotion and labor adjudication remain housed in the same authority, with predictable results. Today's justification is framed in the language of national security rather than anti-communist stability. The effect on workers is functionally equivalent.

Value Chains as Labor Discipline

But the institutional logic of Taiwan's Cold War labor regime reappeared across the broader geography of semiconductor production. The production model that emerged from Taiwan's authoritarian-era electronics sector reproduced coercive labor conditions through value chain governance. Organized through tiered subcontracting, monopsonistic buyer-supplier dynamics, and spatially bounded export zones, this model now generates analogous outcomes without direct state coercion. The mechanism has changed. The outcomes have not.

Global value chain theory helps clarify why. In buyer-driven production networks of the kind that characterize semiconductor manufacturing, lead firms govern suppliers not primarily through ownership but through standards, pricing leverage, and the credible threat of relocation.¹⁶⁹ When a small number of dominant buyers, such as TSMC or Samsung, command the vast majority of advanced chip orders, their specialized suppliers face what amounts to monopsony. Suppliers have few alternative customers and therefore little capacity to resist margin compression. The competitive pressure flows downward. As lead firms squeeze subcontractor prices, subcontractors in turn compress wages, extend hours, defer safety investments, and recruit the most vulnerable

¹⁶⁴ Hsiao, "A Chip Odyssey."

¹⁶⁵ "Interview with Peter Nguyen Van Hung."

¹⁶⁶ U.S. International Trade Administration, "Taiwan - Semiconductors Including Chip Design for AI."

¹⁶⁷ Gary Chen, "Silicon Shield to 'Global TSMC,'" Taipei Times, March 10, 2025, <https://www.taipetimes.com/News/editorials/archives/2025/03/10/2003833151>.

¹⁶⁸ "Interview with Charles Niece."

¹⁶⁹ Gereffi, *Global Value Chains and Development*, 348.

available workers, whether rural migrants, temporary hires, or undocumented laborers. Critically, this mechanism does not require that any participant consciously intend to replicate the RCA-era labor regime. It requires only that the value chain's governance structure reward the same cost-minimizing labor practices that authoritarian institutions once enforced directly. The architecture of exploitation has been marketized, but it remains architecturally intact.

South Korea illustrates how the KMT-RCA structural logic and toxic legacy operate even within a democratized political economy. Samsung and SK Hynix dominate the global memory chip market through extensive subcontracting regimes that mirror Taiwan's monopsonistic supplier dynamics.¹⁷⁰ Korean chaebol firms historically suppressed independent labor organizing with state support, and Samsung did not permit an enterprise union until 2019.¹⁷¹ That union emerged only a decade after activists exposed Samsung's role in the deaths and chronic illnesses of hundreds of workers caused by toxic chemical exposure at its fabrication plants.¹⁷² Even after Korea imposed a 52-hour workweek cap in 2018 and introduced legislation enabling subcontractor unions to bargain directly with chaebols,¹⁷³ the structural dynamics of subcontracting quietly undermine these reforms. Smaller suppliers employing undocumented migrant workers from China and Southeast Asia incentivize those workers to continue working excessive hours through piecework frameworks that circumvent statutory limits.¹⁷⁴ The formal legal environment has changed dramatically since Korea's own authoritarian era. But the value chain's governance structure, in which lead firms' pricing power compresses subcontractor margins and thereby subcontractor labor conditions, reproduces outcomes recognizably continuous with earlier managed labor regimes. Samsung need not suppress unions itself when its market power ensures that the subcontractors who employ the most vulnerable workers cannot afford to tolerate them.

The Philippines reveals a different face of the same mechanism, one in which the spatial and administrative infrastructure of export-oriented production perpetuates coercive labor conditions even under a constitutional democracy with formal protections for organized labor. Philippine export processing zones, modeled partly on

¹⁷⁰ Yoolim Lee and Sangmi Cha, "Samsung, SK Hynix Results to Showcase Fight for AI Memory Crown," *Bloomberg*, January 27, 2026, <https://www.bloomberg.com/news/articles/2026-01-27/samsung-sk-hynix-results-to-showcase-fight-for-ai-memory-crown>.

¹⁷¹ Kap Seol, "Samsung Workers Strike for the First Time in the Company's 55-Year History," *Labor Notes*, July 18, 2024, <https://labornotes.org/2024/07/samsung-workers-strike-first-time-companys-55-year-history>.

¹⁷² Supporters for the Health And Rights of People in the Semiconductor Industry, "SHARPS and Samsung Consent to Binding Arbitration Framework for Occupational Disease Victims," *Stop Samsung - No More Deaths!*, July 23, 2018, <https://stopsamsung.wordpress.com/2018/07/24/sharps-and-samsung-consent-to-binding-arbitration-for-occupational-disease-victims/>.

¹⁷³ Jang Woo-jeong et al., "Labor Reform under Yellow Envelope Bill Puts South Korea's SMEs on Edge," *The Chosun Daily*, July 31, 2025, <https://www.chosun.com/english/industry-en/2025/07/31/JZSBHTM2CRCG7OC7CMU4EC3S7M/>.

¹⁷⁴ "Interview with Chun Soon-Ok," interview by Ethan Chiu, August 2025, In person, Jeon Tae-il Memorial Hall.

Taiwan's Kaohsiung EPZ,¹⁷⁵ concentrate electronics ATP production within spatially bounded areas governed by the Philippine Economic Zone Authority (PEZA). Functioning much as Taiwan's EPZ administrations did under martial law,¹⁷⁶ PEZA often mediates disputes in ways that favor corporate interests. Despite constitutional protections for organized labor, union density in the Philippine electronics sector stands at roughly six percent.¹⁷⁷ The suppression of organizing extends well beyond institutional indifference. When workers at a Metro Manila ATP plant organized, the subcontractor shuttered the facility and relocated to a nearby province, rehiring a non-union workforce.¹⁷⁸ Police regularly visit union members at their homes,¹⁷⁹ labor organizers face "red-tagging" as communist sympathizers,¹⁸⁰ and at least one electronics union organizer, Dandy Miguel, was murdered near a Nexperia ATP plant in the Laguna region.¹⁸¹ Seven in ten Philippine electronics workers are classified as "temporary" hires through labor agencies despite years at the same plant,¹⁸² a contractualization regime that fragments solidarity much as RCA Taiwan's rotating workforce of young women once did. A 2017 factory fire that caused hundreds of casualties finally spurred passage of the Philippine Occupational Safety and Health Standards Act,¹⁸³ but inspections remain rare and fines too low to deter violations.¹⁸⁴ What makes the Philippine case analytically significant is not that it mirrors Taiwan's martial law conditions, which it does not in any simple sense, but that the same value chain pressures produce functionally equivalent labor outcomes through different institutional pathways. PEZA's investment-first mandate, subcontractor capital flight in response to unionization, and contractualization all serve the same structural purpose that the KMT's Garrison Command, corporatist unions, and dormitory enclosure once served. They ensure that the workers who bear the greatest physical and economic risks of semiconductor production have the least capacity to contest them.

These transnational patterns are not coincidental, but neither are they the product of deliberate policy diffusion. They are emergent properties of a production model whose profitability depends on constraining worker

¹⁷⁵ United Nations Industrial Development Organization (Vietnam), "Economic Zones in the Asean - Industrial Parks, Special Economic Zones, Eco Industrial Parks, Innovation Districts as Strategies for Industrial Competitiveness," Sustainable Industrial Park Platform, August 2015, <https://ipp.unido.org/knowledge/documents/economic-zones-asean-industrial-parks-special-economic-zones-eco-industrial>.

¹⁷⁶ Philippine Economic Zone Authority, "Let's Build PH Competitiveness for Exports, Ecozone Investments as Countries Compete amid Pandemic," October 6, 2020, <https://www.peza.gov.ph/press-releases/peza-lets-build-ph-competitiveness-exports-ecozone-investments-countries-compete>.

¹⁷⁷ Philippine Statistics Authority, "2013/2014 Industry Profile: Electronics," *LABSTAT Updates* 20, no. 19 (2016), <https://drive.google.com/file/d/11hBuLLhoYglup3atqFGpSt9MRtEGoV/view?usp=sharing>.

¹⁷⁸ Supreme Court of the Philippines, "G.R. No. 121315, July 19, 1999," *LegalHub.Ph*, July 18, 1999, <https://legalhub.ph/library/gr-no-121315-complex-electronics-employees-association-ceea-represented-by-its-union-president>.

¹⁷⁹ Center for Trade Union and Human Rights, *Unwanted Visits Threaten Lives of Unionists*, February 21, 2022, <https://ctuhr.org/feature-story/unwanted-visits-threaten-lives-of-unionists/>; "Interview with Nexperia Union Leaders," interview by Ethan Chiu, August 2025, In person, Nexperia Union Organizing House.

¹⁸⁰ Human Rights Watch, *Philippines: Dangerous 'Red Tagging' of Labor Leaders; Harassment Threatens Unions; Foreign Companies Risk Complicity in Abuses*, September 25, 2024, <https://www.hrw.org/news/2024/09/25/philippines-dangerous-red-tagging-labor-leaders>.

¹⁸¹ Stephanie, "Dandy Miguel," International Action for Peace, *Human Rights Philippines*, 2023, <https://humanrightphilippines.org/case-studies/dandy-miguel/>.

¹⁸² Christopher Oliquino, "Metal Workers Alliance of the Philippines: Ban All Forms of Contractualization!," *GoodElectronics*, October 7, 2016, <https://goodelectronics.org/metal-workers-alliance-of-the-philippines-ban-all-forms-of-contractualization/>.

¹⁸³ Marya Salamat, "HTI Fire | Cover-up of the Worst Workplace Tragedy in History?," *Bulatlat*, February 23, 2017, <https://www.bulatlat.com/2017/02/23/hti-fire-cover-worst-workplace-tragedy-history/>; Ecumenical Institute for Labor Education and Research, *EILER Hails Passage of Landmark OSH Law*, August 20, 2018, <https://eiler.ph/news/eiler-hails-passage-of-landmark-osh-law/>.

¹⁸⁴ "Interview with the Center for Trade Union and Human Rights/Institute for Occupational Health and Safety Development," interview by Ethan Chiu, August 2025, In person, Center for Trade Union and Human Rights.

agency at the bottom of the value chain. Tiered subcontracting allows major firms to maintain polished reputations and formal codes of conduct while the competitive pressures they impose on suppliers systematically erode labor protections further down the chain. The result is a self-reinforcing cycle in which high margins at the top increase lead firms' leverage over suppliers, compressing subcontractor prices and intensifying labor exploitation at the base. Recognizing this structural reproduction reframes contemporary labor abuses in Korea, the Philippines, and Taiwan's own migrant worker sectors not as isolated enforcement failures in otherwise well-functioning markets, but as systemic features of a production architecture. The foundational logic of that architecture, first consolidated under authoritarian conditions, has proven remarkably durable even as the political regimes that originally sustained it have democratized.

Counter-Archives and Transnational Solidarity

These shared patterns of exploitation generated transnational counter-movements. Organizations rooted in each country's struggles have built cross-border coalitions to document, publicize, and contest the semiconductor industry's labor and environmental harms. Taiwan's TAVOI, which helped organize the RCA workers' landmark litigation,¹⁸⁵ forged early alliances with South Korea's Supporters for Health and Rights of People in the Semiconductor Industry (SHARPS).¹⁸⁶ SHARPS is an independent NGO that emerged from Hwang Yu-mi's 2007 leukemia death at a Samsung fabrication plant and subsequently campaigned for over a decade to hold Samsung accountable for hundreds of worker cancers and fatalities.¹⁸⁷ In the Philippines, the Institute for Occupational Health and Safety Development (IOHSAD) has partnered with the Metal Workers Alliance of the Philippines (MWAP) and the GoodElectronics Network to document chemical exposures and build worker-led occupational safety committees within the electronics sector.¹⁸⁸

¹⁸⁵ "Interview 1 with Former RCA Women Factory Workers," 1.

¹⁸⁶ Xiaowei R. Wang, "Toxic Residue and Cold Wars: Building the Chips That Power the Cloud," *Data & Society*, April 21, 2025, <https://datasociety.net/points/toxic-residue-and-cold-wars-building-the-chips-that-power-the-cloud/>.

¹⁸⁷ "Interview with the Supporters for Health and Rights of People in the Semiconductor Industry," interview by Ethan Chiu, August 2025, In person, Supporters for Health and Rights of People in the Semiconductor Industry.

¹⁸⁸ "Interview with the Center for Trade Union and Human Rights/Institute for Occupational Health and Safety Development."



The author with IOHSAD and MWAP representatives at the Center for Trade Union and Human Rights office, August 2025.¹⁸⁹ The wall displays document red-tagging, police harassment, and violence against labor organizers.

Since the mid-2000s, the GoodElectronics Network, originally established by Dutch and international civil society organizations, has served as the primary transnational platform connecting these groups. In 2025, GoodElectronics formally transferred its global secretariat to a Philippine-based coalition comprising IOHSAD, MWAP, and other allied organizations, marking an institutional shift of the network’s center of gravity toward the Global South.¹⁹⁰ That same year, GoodElectronics, IOHSAD, and the Asian Network for the Rights of Occupational and Environmental Victims co-hosted a “Rights, Empowerment & Action” capacity session in Manila.¹⁹¹ There, representatives from SHARPS, TAVOI, and Thai and Indonesian labor groups shared testimonies of chemical poisoning and strategized around the global campaign for ILO Convention 170 ratification on chemical safety.

At the Manila session, organizers screened South Korean artist Eunhee Lee’s documentary film *Colorless, Odorless* (2024).¹⁹² The film interweaves leaked clean-room footage, archival records, and personal testimonies from former semiconductor workers in Korea and Taiwan, many of whom developed cancers or bore children with

¹⁸⁹ “Interview with the Center for Trade Union and Human Rights/Institute for Occupational Health and Safety Development.”

¹⁹⁰ GoodElectronics, *Welcome Our New Host and Global Secretariat!*, July 7, 2025, <https://goodelectronics.org/welcome-our-new-host-and-global-secretariat/>.

¹⁹¹ GoodElectronics, *Workers’ Safety and Chemical Rights at the Forefront: RE+Act Capacity Session in Manila*, September 17, 2025, <https://goodelectronics.org/workers-safety-and-chemical-rights-at-the-forefront-react-capacity-session-in-manila/>.

¹⁹² GoodElectronics, *Workers’ Safety and Chemical Rights at the Forefront*.

disabilities, to render visible what Lee calls the industry’s invisible hazards.¹⁹³ The film has since been exhibited at institutions spanning Barcelona’s Fundació Joan Miró, Taipei’s MoCA, Art Hub Copenhagen, Kuala Lumpur’s Ilham Gallery, and Beijing’s Inside Out Art Museum,¹⁹⁴ extending the workers’ stories into cultural spaces that reach audiences far beyond labor advocacy circles.



Eunhee Lee’s “Body Alerts” (2025), at the National Museum of Modern and Contemporary Art, Gwacheon, South Korea.¹⁹⁵ The installation juxtaposes photographs of occupational disease victims from RCA Taiwan and Samsung Korea with archival medical imagery.

Such coalitional and artistic efforts represent what TAVOI activists have articulated as an embodied epistemology of harm: “Our bodies are our only evidence.”¹⁹⁶ These transnational solidarity networks thus do more than protest. They construct alternative archives, scientific literacies, and cultural narratives that challenge the semiconductor industry’s self-presentation as clean, efficient, and progressive.

¹⁹³ Eunhee Lee, “Colorless, Odorless,” SEOUL International Women’s Film Festival, 2024, <http://www.siwff.or.kr/>.

¹⁹⁴ Eunhee Lee, *Room Room: Colorless, Odorless*, Art Hub Copenhagen, August 22, 2025, <http://arthubcopenhagen.net/en/exhibition/colorless-odorless/>.

¹⁹⁵ Eunhee Lee, *Body Alerts*, 2025, Documentary, <https://eunheelee.cargo.site/bodyalerts>.

¹⁹⁶ GoodElectronics, *Workers’ Safety and Chemical Rights at the Forefront*.; This formulation resonates with Paola Ricaurte’s concept of “body territory,” which theorizes the body as a site of both extractive violence and political contestation within global production regimes. See Ricaurte, “Ethics for the Majority World.” The RCA workers’ insistence that their diseased bodies constitute evidence inverts the regime’s logic of concealment, reclaiming the body as an archive.

But the point is not to collapse all periods into a single undifferentiated regime. It is to recognize that labor regimes have genealogies. Early institutional labor control mechanisms persist because they become embedded in infrastructure, legal routines, corporate expectations, and transnational production networks. RCA-era labor dynamics cast a long shadow not only over Taiwan's later ATP ecosystem but also over the broader geography of semiconductor production across East and Southeast Asia, even as workforce composition changes and production technologies evolve.

RCA therefore leaves a double legacy. It is a foundational chapter in the institutional myth of Taiwan's semiconductor upgrading, since RCA helped train many of Taiwan's chip industry leaders. But it is equally a foundational chapter in the industrial hazard and labor exploitation counter-history, since the managed labor norms it helped establish continue to shape how the global semiconductor supply chain organizes, disciplines, and disposes of its most vulnerable workers.

Conclusion

This paper has argued that RCA and the KMT developmental state co-produced Taiwan's electronics labor regime, and that this regime was not incidental to Taiwan's semiconductor ascent but constitutive of it. The institutional preconditions for technology transfer simultaneously enabled labor exploitation. The canonical narrative of the 1976 RCA Project as a story of visionary technocrats and trained engineers obscures the gendered, coerced, and chemically poisoned workforce upon which that project depended.

The implications extend well beyond historiographic revision. Over \$500 billion in government semiconductor subsidies announced since 2020 all rest on the premise that chip production serves the national interest.¹⁹⁷ Yet the history reconstructed here suggests that "national interest" framings have consistently subordinated worker welfare to production targets. Semiconductor subsidy programs do not sufficiently condition public funding on enforceable occupational safety standards and labor organizing protections. Chemical exposure limits are particularly outdated and inadequate.¹⁹⁸ When the KMT invoked anti-communist stability to justify suppressing labor organizing, it established a discursive template that contemporary governments reproduce when they invoke "national security" to shield chip firms from labor scrutiny.¹⁹⁹ The vocabulary has changed. The

¹⁹⁷ Ravi, *Global Semiconductor Incentives*.

¹⁹⁸ Chris Mills Rodrigo, "Leveraging the CHIPS Act to Create Good Jobs for All Semiconductor Workers," *Inequality.Org*, August 26, 2024, <https://inequality.org/article/good-jobs-for-all-semiconductor-workers/>. OSHA's chemical exposure limits cover only 500 of the tens of thousands of chemicals used in fabrication and are far less restrictive than medical recommendations.

¹⁹⁹ OECD, *Economic Security in a Changing World, New Approaches to Economic Challenges* (OECD Publishing, 2025), <https://doi.org/10.1787/4eac89c7-en>.

structural logic persists. And an electronics supply chain built on exploited, precarious, and politically disenfranchised labor is not only morally indefensible but inherently fragile.

For Taiwan specifically, this history carries transitional justice implications that remain largely unaddressed. So long as Taiwan's framework excludes labor suppression from its operative categories, the poisoned women on RCA's production lines will remain, in the state's official memory, something less than victims of authoritarian governance. Expanding that framework to encompass state-sanctioned labor exploitation would not diminish the significance of political persecution cases. It would reveal the full scope of how martial law operated not only through spectacular acts of state terror, but through the mundane, daily reproduction of factory discipline that made Taiwan's export economy profitable.

This paper also speaks to how societies narrate technological achievement. If Taiwan's chip industry is a "sacred mountain," then questioning its labor practices becomes national betrayal. This framing reproduces, under democratic auspices, an authoritarian-era logic equating labor dissent with communist Chinese subversion. Taiwan's semiconductor achievement and its labor costs are not competing narratives. They are a single, integrated history. The engineers who built TSMC and the women who assembled RCA's transistors inhabited the same political economy. Acknowledging the latter does not diminish the former. It reveals what technological achievement actually required, and at whose expense.

But the evidentiary base for deepening that acknowledgment is disappearing. The former RCA factory women who can testify to shop floor conditions are now in their sixties and seventies. Several died during the litigation's two-decade span. Researchers' seized field notes remain largely unpublished, factory-level surveillance records stay classified or destroyed, and the migrant worker organizers across Taiwan, South Korea, and the Philippines who document the regime's contemporary reproduction do so in real time, without institutional support for preservation. The transnational counter-archives this paper has documented, from TAVOI's litigation to SHARPS's Samsung campaign to GoodElectronics' shift toward the Global South, suggest that the workers who bear the semiconductor industry's costs already understand what dominant narratives obscure. Their bodies, as TAVOI activists insist, are their only evidence. The task for historians, policymakers, and the public is to ensure that such evidence is not, once again, seized, stamped, and filed away.