PROJECT FOR MIDDLE CLASS RENEWAL

# ILLINOIS EQUAL PAY ACT: COMPREHENSIVE EVALUATION AND POLICY RECOMMENDATIONS (2021–2023)

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## ABOUT THE PROJECT FOR MIDDLE CLASS RENEWAL

The Project for Middle Class Renewal (PMCR), based at the University of Illinois' Labor Education Program, is dedicated to improving conditions for the working class. Our mission is to enhance public understanding of economic and worker issues through research, analysis, and education. We aim to develop policies that tackle poverty, ensure fair representation for all workers, combat discrimination based on gender, gender identity, sexuality, ability status, and race, to create stable employment opportunities, and promote middle-class wages. Each year, we release important research studies and host educational forums on labor and workplace issues.

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# EXECUTIVE SUMMARY

The 2021 amendment to the Illinois Equal Pay Act (EPA) expanded pay transparency by requiring private-sector employers with 100 or more Illinois-based employees to submit demographic and wage data to the Illinois Department of Labor (IDOL). This report evaluates the first three years of implementation, analyzing data on over 3.2 million employees and nearly 4,000 firms.

The analysis based on data collected through the state reporting system reveals persistent wage disparities among workers. Gender wage gaps are relatively modest: women earn about 91-93 cents for every dollar earned by men, but they are concentrated in lower-wage and male-dominated occupations. Racial and ethnic disparities are larger and more entrenched. Black and Hispanic workers earn 6-10% less than comparable White workers even after adjusting for job, firm, and region, with the widest gaps in low-wage and craft occupations. Asian-White comparisons show near or slightly above parity at lower wage levels but converge toward parity at higher levels.

Trends between 2021 and 2023 suggest uneven progress. Gender gaps narrow slightly in mid- and high-wage brackets but widen for women in the lowest wage group. Racial disparities show little improvement, and in some cases, gaps for Black and Hispanic workers grow, underscoring structural inequities that transparency alone has not resolved. Regional analysis shows smaller gender gaps in Cook County but wider disparities downstate, while occupational data highlight persistent inequities in craft, operative, and service roles.

Unlike aggregate reporting models used in other states, Illinois' individual-level framework enables precise, employer-specific analysis. It provides a foundation for data-driven enforcement and offers a model for other states. To strengthen the system, the report recommends:

- Improving data quality through better guidance and validation tools.
- Enhancing transparency with public dashboards and employer self-audit tools.
- Expanding coverage to smaller firms and contractors and including more demographic categories.
- Increasing coordination across state agencies to reduce employer burden.
- Implementing a threshold-based flagging system to target enforcement where gaps are largest.

Given the current enforcement capacity of the IDOL, the report recommends adopting a 3-tiered flagging structure that classifies employers into categories based on reported pay disparities: *1-informational, 2-moderate risk* and *3-high-risk*. This multi-tiered structure can be used to help ILDOL to assess when and if, a potential Act violation has occurred.

The report encourages employers to adopt best practices, such as regular pay audits, objective job evaluation tools, and integrated pay equity reviews. These steps will support compliance, reduce risk, and promote fair compensation practices.

Illinois' EPA reporting program offers a powerful tool to identify and address workplace pay inequities. With continued improvements in data quality, enforcement, and coverage, it can drive more equitable compensation and reduce persistent inequities across gender and race while reinforcing the state's leadership in pay transparency and accountability.

## BACKGROUND AND LEGISLATIVE CONTEXT

The 2003 Illinois Equal Pay Act (EPA) seeks to reduce wage disparities across gender and race. Its 2021 amendment requires private businesses with 100 or more employees in the State of Illinois to submit an application to obtain an Equal Pay Registration Certificate (EPRC) by providing certain pay, demographic, and other data to the Illinois Department of Labor (IDOL), and to recertify every two years following the initial submission.

With the addition of new requirements under Section 11 of the EPA, IDOL now has several interrelated enforcement and data maintenance duties:

- Data Collection and Maintenance (820 ILCS 112/11 (b) and (c)): IDOL collects and maintains pay data submitted by large employers in the State. Private businesses with 100 or more employees are required to submit to IDOL an EPRC application that includes employee pay and demographic data and information such as the approach the business takes in determining wages and benefits paid to employees. EPRC applications are submitted to IDOL's online portal where the application data can be analyzed and used for enforcement, reporting, and other purposes allowed by the Act.
- Compliance Enforcement (820 ILCS 112/11(d) and (e)): IDOL sends businesses communications about their EPRC requirements and application due dates. When an EPRC application is received, IDOL must issue an EPRC certificate or reject the application if all requirements are not met and may revoke or suspend an already issued EPRC certificate.

Pursuant to the Intergovernmental Agreement (the "Agreement") between IDOL and University of Illinois Urbana Champaign (UIUC), staff at the School of Labor and Employment Relations at the UIUC (the "research team") were selected to assist IDOL with data management duties related to the implementation and enforcement of Section 11 of the EPA (the "Act") (820 ILCS 112).

In accordance with the terms of the Agreement, the research team conducted a comprehensive review of the data collected by IDOL. Based on this review, the team recommends improvements to the data collection process to enhance both accuracy and usability. In addition, the team analyzed the submitted data and produced preliminary findings to demonstrate how this data collection effort can support the strategic enforcement of the Act and inform future policy development.

The team's comparative state analysis suggests Illinois' individual-level reporting approach represents a strong model for assessing possible compensation disparities in violation of the law. The team examined pay equity data collection efforts in California, Rhode Island, and Massachusetts. While Rhode Island and Massachusetts do not require employers to submit pay data to the state, both offer tools to help employers conduct self-evaluations. Importantly, both states recommend that pay data be analyzed at the individual level. In contrast, California mandates pay data reporting for certain employers, but only in aggregate form, using EEOC-defined job categories. Unlike California's aggregate system, Illinois' individual-level model enables granular, within-employer analysis of wage disparities, allowing greater precision in identifying inequities and supporting strategic enforcement.

In addition, while Bureau of Labor Statistics (BLS) wage statistics provide useful benchmarks for overall labor market trends, they do not permit within-employer comparisons. Illinois' EPA data offer a rare

administrative source of individual-level wage records directly tied to specific employers, enabling more accurate assessments of pay disparities across job titles, locations, and demographic groups. This granularity allows targeted enforcement strategies and evidence-based policymaking that are not possible with traditional survey data.

As one of the few states to require pay data reporting at this level of detail, Illinois is positioned to serve as a model for other jurisdictions. The implementation experience offers timely insights into the promise and challenges of data-driven regulatory design and can inform broader efforts to reduce wage inequality at both state and federal levels.

## DATA AND METHODOLOGY

This analysis drew on three years of employer-reported data collected under the Illinois EPA, supplemented by national datasets for validation and benchmarking. The objective was to assess gender and racial wage disparities across Illinois workplaces and to inform policy design with accurate, representative evidence. This section outlines the data sources, cleaning procedures, and analytical strategies used to produce the findings in this report.

The core data for this analysis were the EPRC submissions collected by IDOL from 2021 to 2023. These records include employee-level data from private employers with 100 or more Illinois-based employees, covering annual wages, hours worked, gender, race/ethnicity, and job classification according to EEOC categories. This dataset is uniquely suited for within-firm comparisons of pay practices and is one of the most detailed state-level wage reporting systems in the country.

To assess the representativeness of the EPA data and contextualize wage trends, the research team supplemented the EPA data with two key national sources: the American Community Survey (ACS) and BLS data. ACS data were used to benchmark the demographic composition of Illinois' labor force, validate distributions of work hours, and compare aggregate wage patterns. BLS data, based on the Current Population Survey and state-level earnings series, provided a national reference point for gender wage gap estimates and labor market trends. Together, these sources enabled the research team to triangulate findings from administrative, survey, and statistical perspectives.

## SAMPLE CONSTRUCTION AND DATA CLEANING

The initial dataset provided by the IDOL consisted of over 3.5 million employee-level records submitted by covered employers between 2021 and 2023. To prepare the data for analysis, the research team applied a rigorous cleaning protocol designed to remove inconsistencies, correct reporting errors, and improve analytical reliability. The process involved identifying and removing duplicate entries, filtering out records with zero wages or zero hours worked, and excluding cases with implausible values, such as extremely high reported annual work hours or wages below the state minimum.

In addition, the sample was limited to the years when the EPRC was formally required, with all pre-2021 data removed. These steps ensured the final dataset more accurately reflected the population of interest, Illinois-based employees working in firms subject to EPRC reporting requirements, and enabled valid comparisons across demographic and occupational groups.

Following these procedures, the final analytic sample included over 3.2 million valid observations. These records retained essential variables, such as gender, race and ethnicity, annual wages, hours worked, and job classification. A full description of the data cleaning procedures, including rationale and summary statistics for dropped records, is provided in Appendix A.

## ANALYTICAL APPROACH

The analytical strategy employed in this project combined descriptive statistics, geographic segmentation, and multivariate regression modeling to assess gender and racial pay disparities using the EPA data. The research team computed average hourly wages disaggregated by gender, race/ethnicity, job classification, and wage brackets. This descriptive phase established baseline patterns, revealing that gender gaps tend to widen in higher-wage occupations while racial gaps are more pronounced in lower-wage roles.

To capture regional variation, the analysis incorporated labor market boundaries defined by the Illinois Department of Employment Security (IDES). Wage gap estimates were produced for each region and major county, and the statistical reliability of county-level results was assessed based on sample size thresholds. This spatial lens highlighted localized disparities and allowed policymakers to identify where gaps were most severe.

Building on these insights, the final phase of analysis employed multivariate regression models to estimate adjusted wage gaps while accounting for structural and demographic factors. To better isolate the effect of gender on pay, the research team used ordinary least squares with logged hourly wages and estimated a series of multivariate regression models using log hourly wages as the outcome. These models progressively added controls for year, geographic region, race/ethnicity, union coverage, and employer fixed effects. This approach yielded conservative, policy-relevant estimates of wage differentials that remained robust across specifications.

# KEY FINDINGS

## GENDER PAY GAPS

Across all three years of EPA data collection, the analysis reveals a consistent and measurable wage gap between men and women employed in large private-sector firms in the state. While the size of the gap varies by occupation, wage level, and region, women in Illinois earn less than men on average, even when working in the same job categories and for the same employers.

Descriptive comparisons of hourly wages across more than three million employee records show gender differences are relatively modest, but vary somewhat by wage bracket, region, and job classification. Female-to-male wage ratios in Illinois between 2021 and 2023 remain close to parity, generally ranging between 0.945 and 0.992. Notably, the largest gaps consistently appear in the lower wage categories (<$50 hourly), while women in the higher wage categories ($100-$200 hourly) approach near parity with men, suggesting gender gaps are narrowing at the top of the earnings distribution. Regional data reveal a similar pattern, with most areas reporting ratios above 0.95 in the mid- and high-wage brackets, though some regions fall below 0.90 in the lowest wage group. This result suggests progress on gender equity has been concentrated among higher earners, leaving women in lower-paid jobs to face more persistent disadvantage.

Geographic variation further highlights structural differences. Wage comparisons across counties and economic development regions show gender gaps are generally smaller in metropolitan areas, particularly Cook County, where industry mix, and union presence may mitigate disparities. Rural and downstate regions exhibit wider gaps.

Occupational differences show more variation: women in administrative support, professional, and managerial roles earn nearly equal to men, while those in sales and operative jobs have modest shortfalls. The most striking gap appears among craft workers, where women earn just two-thirds of men's wages in the under $50 hourly wage bracket, pointing to deeply gendered segmentation in certain occupations.

The results of multivariate regression models show that women earn about 91-93% of men's wages, after accounting for all included covariates. These estimates are statistically robust across model specifications and hold under alternative modeling assumptions.

It is important to note a key methodological distinction between state and federal pay gap statistics. The Illinois EPA analysis relies on mean (average) hourly wages, derived from employer-submitted data for individual workers. This approach enables within-employer comparisons and is sensitive to actual dollar differences in compensation. In contrast, national wage statistics reported by the US Bureau of Labor Statistics are based on median weekly earnings, reflecting the midpoint of earnings across the entire labor market. While both metrics are valid, they capture different dimensions of wage disparities. The median is less influenced by extreme values and reflects a "typical" worker's earnings, whereas the mean permits a more detailed examination of disparities across income levels and occupations. As such, the two are not directly comparable, but provide complementary insights into labor market inequality. When viewed in this context, the estimated disparities derived from the EPA data range from 91 to 93 cents on the dollar. In contrast, the US BLS for Illinois during the same period ranges from 80.7 to 83.6 cents (see Appendix G).

While gaps remain, particularly in high-paying and male-dominated roles, the evidence suggests Illinois is making meaningful progress, reflecting the impact of increased employer accountability, data transparency, and compliance efforts under the EPA. With continued policy innovation, expanded employer engagement, and targeted enforcement, the state is well-positioned to further narrow the gender wage gap and solidify its leadership in pay equity reporting.

## RACIAL AND ETHNIC WAGE GAPS

Analysis of racial and ethnic pay disparities based on three years of EPA submissions reveals larger and consistent wage gaps between White workers and workers of color across large private-sector employers in Illinois. These disparities are apparent in both descriptive comparisons and regression-adjusted models and are particularly pronounced in lower-wage workers.

Descriptive comparisons show Black-White and Hispanic-White ratios in the lowest wage category (<$50 hourly) are around 0.83 to 0.85 between 2021 and 2023, although gaps are narrower at higher wage levels. These figures suggest racial inequities are not only entrenched but disproportionately concentrated among lower-wage workers. The regional breakdown confirms this pattern, with Black and Hispanic workers in most regions earning 15-20% less than White workers in the lowest wage group. In contrast, Asian-White ratios often reach and sometime slightly exceed parity at the bottom of the wage distribution, particularly in some regions (e.g., over 1.127 in Region 3), though they converge toward or fall slightly below parity in higher wage brackets. This upward skew in Asian-White comparisons indicates pay equity does not follow a uniform trajectory across groups, complicating simple narratives of convergence. Unlike gender pay gaps, where urban regions tend to show smaller disparities, racial wage gaps in the lower wage bracket persist across both rural and urban areas.

Occupational results underscore the persistence of racial disparities: for example, Black craft workers earn only 88% of their White peers' wages, while Hispanic craft workers earn just 69% in the lowest wage group. Although professionals and managers show ratios closer to parity, the sharp disparities in lower-status occupations reveal how racial inequality is layered on top of occupational stratification, compounding disadvantage for certain groups.

Regression-adjusted models, controlling for job category, region, employer, and gender, confirm the persistence of racial pay gaps even after accounting for observable characteristics. Black workers earn approximately 6-8% less and Hispanic workers 4-6% less than comparable White employees. The fact that these gaps remain after statistical adjustment suggests structural inequities may be embedded in occupational sorting, wage-setting practices, or access to advancement opportunities. Taken together, these findings underscore the continued need for targeted enforcement and proactive employer action to advance racial equity in compensation.

It is important to note a key methodological distinction in the interpretation of racial pay gaps. The Illinois EPA data rely on mean (average) hourly wages reported at the employer level, thus enabling within-firm comparisons by race and occupation. In contrast, national estimates from the US BLS are based on median weekly earnings, reflecting the midpoint of the national wage distribution. According to 2023 BLS data, Black workers earn only 80.8% and Hispanic or Latino workers earn 76.8% of what White workers earn nationally,

While the median weekly earnings of Asian workers is 1.3 times those of White workers (BLS, 2024). These median-based comparisons provide a broad view of labor market inequality but do not allow employer-specific or occupation-specific analysis.

Because the EPA reporting system uses employer-level, mean-based measures, it permits more granular identification of pay disparities and is well-suited to informing targeted enforcement. Although the gaps reported in Illinois appear narrower than national statistics, they reflect different measurement methods and levels of analysis. The state's approach is not directly comparable to national medians, but it offers a complementary and more actionable view of racial pay inequality within workplaces.

The evidence suggests that despite Illinois' transparency-focused model, clear pay inequities remain, particularly for Black and Hispanic workers in lower-paid roles. Continued improvements in data quality, coverage, and employer guidance, along with better interagency coordination, will be essential to narrow these gaps further and promote racial equity in pay outcomes across the state.

## TRENDS OVER TIME

The EPA data between 2021 and 2023 offer an opportunity to assess whether gender and racial wage gaps in Illinois are narrowing over time. While the reporting period is relatively short, the analysis identifies modest but notable patterns in the evolution of pay disparities, suggesting incremental progress in some occupational categories, particularly for women in mid- to high-skill roles.

The results of both descriptive and regression-based approaches point to only modest progress on pay equity. Gender ratios show a slight improvement in mid- and high-wage brackets from 2021 to 2023, but they decline in the lowest wage bracket, widening the gap for lower-paid women. This divergence signals a risk of growing polarization, where gender equity advances at the top but stalls – or reverses – at the bottom. Regional results reinforce this point: while women in many regions approach parity with men in the middle and upper wage brackets, women in the lowest bracket continue to lag, with little evidence of closing the gap over time. Occupational results further suggest progress is highly uneven across job categories. While professionals, administrative staff, and managers show steady improvement toward parity, women in traditionally male-dominated fields such as craft work and operatives remain far behind, with gender gaps that are both wide and remarkably persistent.

Racial gaps exhibit less positive movement. Black-White and Hispanic-White ratios among low-wage workers deteriorate between 2021 and 2023, though modestly, underscoring growing inequities at the bottom of the wage distribution. Rather than closing over time, these disparities are hardening, suggesting structural barriers that current pay equity measures have yet to address. Regional data again underscore the persistence of these gaps, as no area shows a consistent trajectory toward racial pay equity in the lowest wage categories. Occupation-level data point to the same conclusion: some managerial and professional roles come close to parity, but low-wage occupations such as craft, service, and operative jobs consistently show large and, in some cases, widening racial inequities.

Taken together, the time trend analysis suggests early implementation of equal pay reporting requirements may be contributing to modest gains in gender pay equity, particularly in occupations where women are

more evenly represented. However, racial disparities appear more structurally embedded and less responsive to current policy enforcement and reporting mechanisms alone. Especially for Black and Hispanic workers in low-wage and craft occupations, racial pay inequalities seem entrenched, show worrying signs of deterioration, and highlight the limits of incremental progress. As additional years of data become available, continued monitoring will be essential to identify where progress is taking hold and where further action is needed to close persistent gaps.

## INTERNAL PROCESS AND DATA COLLECTION RECOMMENDATIONS

The Illinois EPA reporting framework has positioned the state as a national leader in pay transparency. To build on this foundation, the research team recommends several enhancements to improve the quality, coverage, and enforcement of the program. These recommendations are grounded in empirical analysis of three years of submitted employer data and draw on best practices from other states. The following recommendations are aimed at strengthening the impact, fairness, and long-term effectiveness of data collection effort mandated by the Act.

1. **Improve data quality**: Ensuring high-quality data is critical to the effectiveness of Illinois' pay equity reporting system. Several recurring issues have been identified in submitted reports, including inconsistent or non-standardized job titles, implausible reports of total hours worked, and extreme outlier wage values. For example, some records list annual hours far beyond what is feasible, while others report wages that fall well outside the expected range for a given occupation. These inconsistencies undermine the reliability of cross-employer and within-firm comparisons and compromise the accuracy of both descriptive and statistical analyses. Addressing these problems through
   a) clearer reporting guidance,
   b) built-in validation checks, and
   c) the adoption of standardized job classification tools would significantly improve the utility of the data for both enforcement and policy development.

2. **Improve interagency data coordination:** Enhancing data coordination across state agencies would reduce redundant reporting and improve overall data accuracy. Several agencies already collect information related to employee wages, employer industry codes (e.g., NAICS), and employment size for other regulatory purposes. Establishing secure data-sharing protocols, particularly between IDOL and agencies such as the Department of Employment Security or Department of Revenue, would significantly reduce the reporting burden for employers, minimize data entry errors, and improve the consistency of submitted data across state systems. Interagency collaboration would also enable more integrated oversight of wage equity across the labor market.

3. **Enhance transparency and utility:** Enhancing the transparency and practical use of Equal Pay Act data would increase both public accountability and employer engagement.
   a) One recommended step is the publication of anonymized, aggregate dashboards displaying pay equity trends by region, industry, and job classification. These public-facing tools would enable policymakers, researchers, and community stakeholders to better understand where disparities persist while protecting individual privacy.

b) A second step is the development of self-audit tools, modeled after those used in Massachusetts and Rhode Island to empower employers to proactively assess and correct pay disparities. Providing clear templates and calculation guidance can support voluntary compliance and reduce the need for reactive enforcement.

4. **Expand data collection coverage:** Although the reporting scope is set by the state legislature, expanding it is necessary to address existing coverage gaps. At present, only private-sector employers with 100 or more Illinois-based employees are required to participate, excluding many workers employed by smaller firms or public sector entities. We encourage IDOL to advocate to the state legislature to expand the Act's impact, and we suggest that the state should consider:
   a) lowering the reporting threshold to include employers with 50 or more employees and extending requirements to state contractors, and
   b) expanding the range of protected characteristics, such as disability status, veteran status, and immigration status, to allow the system to capture pay disparities affecting historically underrepresented groups.

   These changes would help ensure that pay transparency policies reflect the full diversity of the state's workforce.

5. **Target enforcement efforts:** To maximize the effectiveness of enforcement, the state should focus investigative resources on occupations and sectors where disparities are most pronounced:
   a) Gender-based gaps are largest in craft, executive, and sales roles,
   b) and racial disparities are particularly evident in service and laborer positions. Prioritizing audits in these areas can help address the most urgent inequities.
   c) In tandem, implementing a threshold-based flagging system (see below), where employers with unusually large wage gaps are identified for potential review, would make enforcement more strategic and efficient. A data-driven approach ensures that limited enforcement capacity is focused on outliers, where the likelihood of systemic disparities is highest.

## A THRESHOLD-BASED FLAGGING SYSTEM

Designing a threshold-based flagging system to identify employers with unusually large wage gaps requires a robust, transparent, and defensible methodology that supports targeted enforcement under the Illinois EPA. The research team has developed a detailed framework for constructing such a system and recommends that its initial implementation should focus on employer-wide average wage gaps. These gaps should be calculated as percentage differences relative to the dominant group, typically male or White workers, based on raw average hourly wages disaggregated by gender or race.

Given the current enforcement capacity of the IDOL, we recommend adopting a 3-tiered flagging structure that classifies employers into categories based on reported pay disparities: *1-informational, 2-moderate risk,* and *3-high-risk*

- Tier 1
  - Employers with average gaps between 5% and 15% would be flagged at an informational level.
- Tier 2
  - Gaps exceeding 15% but below 25% would be categorized as moderate risk and recommended for further review.
- Tier 3
  - Employers with gaps greater than 25% would fall into a high-risk category, warranting immediate attention.

To reduce false positives and ensure more meaningful comparisons, we suggest adjusting for employer size, so small firms with very few employees are not disproportionately flagged due to statistical volatility.

As employer familiarity with pay equity reporting improves and the quality of submitted data increases, the system can evolve to incorporate relative thresholds, such as identifying the top five percent of employers with the widest gaps within specific job classifications or geographic regions. These thresholds should be periodically reassessed to ensure they remain responsive to the distribution of observed disparities and aligned with the state's enforcement priorities.

## EMPLOYER "BEST PRACTICE" RECOMMENDATIONS

To support compliance with the Illinois EPA and advance workplace equity, we recommend that employers adopt proactive, research-informed practices. Drawing on international experience and early lessons from Illinois' own reporting system, we offer two sets of recommendations: one focused on policy compliance measures, and the other on voluntary HR practices that promote internal equity and long-term organizational improvement.

### A. POLICY COMPLIANCE-ORIENTED RECOMMENDATIONS

As Illinois employers covered by the Equal Pay Act, employers play a critical role in advancing pay equity across the state. Beyond meeting legal obligations, adopting a strategic approach to compliance can help mitigate risk, improve transparency, and strengthen employee trust. The following practices are intended to reinforce internal systems and ensure that employers are positioned to comply with current regulations while preparing for future standards.

1. **Conduct regular pay audits:** Employers should implement a structured process to review internal pay data by gender and race on a recurring basis. Pay audits help identify disparities that may not be apparent in aggregate figures. However, to be effective, audits must lead to clear, actionable responses, such as revising pay bands, adjusting job classifications, or addressing systemic gaps, rather than serving simply as compliance exercises.[1]

2. **Use objective tools to evaluate "equal pay for work of equal value":** To determine whether employees performing comparable work are compensated equitably, employers should consider adopting standardized evaluation tools. These frameworks can help compare roles requiring similar skill, effort, and responsibility, even across departments. Such tools should also account for part-time, seasonal, or contract roles to avoid unintentionally excluding segments of the workforce.[2]

3. **Prepare for evolving enforcement expectations:** Relying solely on employee complaints is not a sustainable approach to compliance. Strengthening internal oversight, documentation, and compensation review systems will help employers anticipate greater scrutiny from regulators. Staying up to date with guidance from the IDOL and engaging constructively with third-party reviewers can further enhance accountability and preparedness.[3]

[1]e.g., Bamberger & Alterman (2023), Bennedsen et al. (2023), Blundell et al. (2025), Friedman (2015), Vance & Saini (2023), and Zabalza & Tzannatos (1985).

[2]e.g., Chordiya & Hubbell (2023), Friedman (2015), Rubery (1997), Trotter et al. (2017), Wagner (2020), and Whitehouse (2020).

[3]e.g., Bamberger & Alterman (2023), Friedman (2015), Hutson et al. (2023), Lyons & Zhang (2023), Picault (2023), Vance & Saini (2023), and Zabalza & Tzannatos (1985).

4. **Understand the role of penalties and incentives:** Failing to comply with equal pay standards may expose employers to financial, reputational, and legal consequences. Proactively addressing disparities helps reduce such risks and signals credibility to employees, investors, and the broader public. In addition, demonstrating leadership in pay equity may position employers to benefit from future incentive-based programs or procurement preferences.[4]

5. **Invest in employee and manager training:** Ensuring all levels of the organization understand pay equity obligations and internal reporting procedures is essential. Employers should encourage managers to participate in tailored training, organized by IDOL, that explains how equity principles apply to decisions related to hiring, promotion, and compensation.[5]

6. **Support unions as constructive partners:** When the workforce is unionized or moving toward unionization, employers should collaborate with labor representatives to incorporate transparent, equity-focused provisions into collective bargaining agreements. Evidence shows such collaboration can lead to meaningful improvements in pay equity, especially when both parties prioritize shared responsibility. [6]

### B. VOLUNTARY HR-ORIENTED PRACTICES

The following eight internal practices are not legally required but can significantly reinforce pay equity goals, improve employee morale, and reduce legal and reputational risk. By implementing them, employers can demonstrate leadership in equitable compensation and build more inclusive workplaces.

1. **Conduct regular internal pay audits:** Employers should establish a routine schedule for internal wage reviews, disaggregated by gender and race. These audits should use consistent job classification systems and control for factors such as tenure, job level, and hours worked to ensure meaningful comparisons. Transparent audits demonstrate organizational commitment and can prevent compliance failures.[7]

2. **Implement job evaluation tools to assess work of equal value:** Employers are encouraged to adopt structured tools that assess the value of different roles using standardized criteria. This approach helps reveal structural inequities and ensures roles predominantly held by women or people of color are not undervalued.[8]

3. **Provide equity training for HR and leadership:** Employers should deliver regular, role-specific training for hiring managers, supervisors, and HR professionals. Such training should focus on how pay equity principles apply to compensation, promotion, and job structuring decisions.[9]

4. **Offer negotiation support that reflects workplace realities:** Negotiation training can build employee confidence, but it must be sensitive to the social dynamics that shape negotiation outcomes. Employers should recognize that structural bias, rather than individual effort alone, often influences results, and should avoid reinforcing stereotypes through one-size-fits-all solutions.[10]

[4]e.g., Bamberger & Alterman (2023), Bennedsen et al. (2023), Picault (2023), and Zabalza & Tzannatos (1985).

[5]e.g., Brown et al. (2022), Friedman (2015), Kray et al. (2024), and Trotter et al. (2017).

[6]e.g., Friedman (2015), Milner et al. (2019), Rodriguez-Plesa et al. (2024), and Sosin et al. (1998).

[7]e.g., Bamberger & Alterman (2023), Bennedsen et al. (2023), Picault (2023), Friedman (2015), Vance & Saini (2023), and Zabalza & Tzannatos (1985).

[8]e.g., Chordiya & Hubbell (2023), Friedman (2015), Wagner (2020), and Whitehouse (2020).

[9]e.g., Friedman (2015), Brown et al. (2022), and Vance & Saini (2023).

[10]e.g., Kray et al. (2024) and Recalde et al. (2023).

5. **Make pay equity a standing HR priority:** Pay equity considerations should be embedded into standard HR processes, including hiring, promotion, and compensation review cycles. Assigning clear responsibility to a dedicated team or leader ensures accountability and sustained progress. Employers should proactively respond to disparities found in company payroll practices.[11]
6. **Base employee compensation on structured management practices:** To avoid unjust pay disparities, employers should adopt formal practices that facilitate developing and consistently applying rules for compensation.[12]
7. **Strengthen internal dialogue and employee voice:** Employers should create structured feedback channels, such as employee resource groups, affinity networks, or workplace councils. These groups can provide valuable insights into how employees experience advancement and compensation, which in turn, can inform continuous improvements to equity policies.[13]
8. **Educate employees about compensation system:** Employers should intentionally enhance their workforce's awareness of the employer's compensation structure and system.[14]

These recommendations are grounded in best practices from both domestic and international organizations. While not all are legally required, they reflect a forward-looking approach to pay transparency and organizational accountability. Employers who implement these practices are better positioned to attract and retain diverse talent, mitigate compliance risks, and lead in achieving equity in an increasingly competitive labor market.

## CONCLUSION

Illinois' EPA reporting system offers a unique and valuable lens through which to study pay disparities within individual workplaces, yielding insights that are not available through broader labor market surveys. Although the reported gender pay gap appears narrower than national estimates from the BLS, notable inequities remain, particularly for women in lower-wage earners. Racial pay gaps also persist, especially for Black and Hispanic workers in lower-wage jobs, despite the narrow disparities observed in Illinois. Continued progress will require refinements to data collection, broader employer participation, and expanded access to self-assessment tools. By strengthening these pillars, Illinois can further its leadership in pay transparency while promoting fairer compensation practices and ensuring accountability through robust, data-driven analysis.

[11]e.g., Friedman (2015), Milner et al. (2019), Picault (2023), and Trotter et al. (2017).

[12]e.g., Bamberger & Alterman (2023), Rubery et al. (1997), Wagner (2020), and Whitehouse (1992, 2020).

[13]e.g., Bamberger & Alterman (2023), Brown et al. (2022), Milner et al. (2019), Rodriguez-Plesa et al., Trotter et al. (2017), and Vance & Saini (2023).

[14]e.g., Bennedsen et al. (2023), Brown et al. (2022), Lyons & Zhang (2023), Trotter et al. (2017), and Vance & Saini (2023).

## REFERENCED SCHOLARLY WORK


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# APPENDICES

## APPENDIX A: COMPARATIVE STATE REPORTING MODELS (IL, CA, MA, RI)

We systematically compared Illinois' equal pay reporting requirements to those of California, Rhode Island, and Massachusetts. States were selected for comparison based on their leadership in pay equity legislation, data transparency practices, or use of employer-facing equity tools. The table below summarizes six key dimensions of comparison: data level, job classification method, employer coverage, protected characteristics, pay justification factors, and employer support tools.

| Category | Illinois | California | Rhode Island | Massachusetts |
|---|---|---|---|---|
| Data Level | Employee-level | Aggregate-level | Employee-level (voluntary) | Employee-level (voluntary) |
| Job Grouping | EEOC categories | EEOC categories | Comparable work (skill, effort, etc.) | Comparable work (skill, effort, etc.) |
| Coverage | Private firms, 100+ IL employees | Private firms, 100+ U.S. employees (≥1 in CA), incl. contractors | Voluntary | Voluntary |
| Protected Traits | Gender, race, ethnicity | Gender, race, ethnicity | Broad (incl. dis-ability, age, etc.) | Gender only |
| Pay Justifications | Seniority, merit, production, experience | Seniority, merit, production, experience | Adds cost of living, shift, travel | Adds location, performance, qualifications |
| Employer Tools | None | None | Self-audit tools | Online Pay Equity Tool |
| Reporting Format | Yearly gross wage (W2-Box 5) + annual paid hours | Pay band, mean and median hourly rate at the business level, total hours worked of all pay-roll employees | Total base compensation | Hourly rate, annual hours, total OT hours/ annual base salary, total annual hours, incentive pay |

## APPENDIX B: SUMMARY OF OVERVIEW OF DATA COLLECTION AND PLATFORM

The portal facilitates the registration process for employers. During registration, employers provide comprehensive employee data, including gender, race, and job titles, which are crucial for analyzing pay disparities. The registration process ensures that all necessary information is collected, enabling subsequent data analysis. However, there is room for improvement. By implementing the recommendations in this report, the portal can significantly enhance its functionality, providing more accurate and actionable data to inform strategic enforcement and ensure compliance with equal pay regulations.

The research team recommends the following adjustments:

- Expand employer information fields to include number of establishments, number of payroll employees, and NAICS industry codes.
- Clarify data submission options by clearly stating the two available methods: manual entry and CSV file upload.
- Implement real-time validation features such as error and warning messages to help employers complete reports accurately.
- Enhance reporting tools by adding filters for job title, county, gender, and race to support targeted analysis.
- Display certificate expiration dates in the employer information section for reference and tracking.
- Allow customizable report generation by job classification, geography, and demographic characteristics (e.g., gender, race, years of service).
- Include statistical summaries (e.g., mean and standard deviation) alongside individual-level wage listings and counts.
- Assess the need for a separate user search function and consider integrating it with the existing company access list to streamline navigation.
- When presenting demographic wage reports, include average wages by race and gender only when it avoids identifiability risk, and always include the overall group average for context.
- Expand data collection by adding additional characteristics:
  - Collect collective bargaining agreement (CBA) coverage at the individual level (not just firm-wide).
  - Add disability, veteran, and visa status as new data fields to identify vulnerable worker groups.

## APPENDIX C: DATA CLEANING PROTOCOL

To ensure the accuracy and reliability of wage disparity analyses, the research team conducted a comprehensive data cleaning process on the EPRC submissions. This process addressed common reporting errors and inconsistencies across the nearly four million employee-level records collected from Illinois employers. Key cleaning steps included the removal of duplicate entries, exclusion of observations with zero wages or implausible work hours, and elimination of wage reports falling below the state minimum. Outlier thresholds were applied to extreme hourly wage values, and inconsistencies between reported wages and work hours were flagged. Together, these procedures refined the dataset to a more analytically sound sample of 3.21 million observations, allowing more accurate assessments of pay equity across job classifications, demographics, and regions.

| Step | Issue Addressed | Action Taken |
|---|---|---|
| 1. Duplicate Records | Identical records across all variables | Removed 2,521 duplicate observations |
| 2. Year of Data | Some 2020 data included, despite official start in 2021 | Removed 1,508 observations from 2020 |
| 3. Zero Wages | Invalid for analysis | Dropped 47,571 records with $0 annual wages |
| 4. Zero Work Hours | Cannot compute hourly wage | Dropped 571,239 observations with 0 hours |
| 5. Extreme Work Hours | Implausibly high values (e.g., >5,500 hours/year) | Dropped 8,961 observations over the threshold |
| 6. Below-Minimum Wages | Potential reporting errors | Excluded 112,775 observations below state minimum wage |
| 7. Hourly Wage Outliers | Right-skewed distribution distorts analysis | Wage cap sensitivity tests using $1,000 and $500/hour thresholds |
| 8. Work Hours-Wage Mismatch | Non-zero wages with zero hours | Flagged for compliance concerns |
| 9. High Variability by County and Year | Sparse data in small counties, year inconsistencies | Focused disparity analysis on largest counties by region |
| 10. CBA Flag | Unusually high reported CBA coverage | Flagged potential inclusion of public sector firms (which are exempt) |

We also conducted a comparative analysis of EPA and ACS data to benchmark our empirical approaches. A major divergence appeared in reported work hours: EPA data report significantly fewer average annual hours than ACS data, about 1,225 to 1,289 hours compared to 1,979 hours, likely due to differences in measurement and reporting scope. The EPA dataset also shows a slightly more diverse workforce, with higher proportions of Black and Hispanic workers and lower representation of White non-Hispanic workers than the ACS. Consequently, EPA data report higher hourly wages but lower annual earnings than ACS data. These differences underscore the importance of interpreting the research team's analytical results within their specific employer-level context while using ACS as a valuable benchmark for population representativeness. Both datasets focus on employed individuals, but EPA data are employer-reported and job-specific, enabling within-firm comparisons, while ACS data are self-reported and aggregated across multiple jobs, capturing broader labor market trends.

## APPENDIX D: DESCRIPTIVE STATISTICS OF WAGE GAP

**TABLE D1 - WAGE RATIOS BY GENDER AND RACE/ETHNICITY, 2021-2023**

| Year | Wage bracket | female/male | Black/White | Hispanic/White | Asian/White |
|---|---|---|---|---|---|
| 2021 | <$50 | 0.966 | 0.858 | 0.916 | 1.162 |
| | $50-$100 | 0.964 | 0.971 | 0.967 | 0.984 |
| | $100-$200 | 0.976 | 1.008 | 1.001 | 0.989 |
| 2022 | <$50 | 0.960 | 0.833 | 0.834 | 1.068 |
| | $50-$100 | 0.979 | 0.962 | 0.965 | 1.026 |
| | $100-$200 | 0.988 | 0.990 | 0.989 | 0.996 |
| 2023 | <$50 | 0.945 | 0.837 | 0.788 | 1.021 |
| | $50-$100 | 0.992 | 0.962 | 0.957 | 1.020 |
| | $100-$200 | 0.987 | 0.994 | 0.987 | 0.989 |

Note: Values represent wage ratios by group within each wage bracket and year, based on EPA submissions in Illinois. Ratios are calculated as the average earnings of the group listed divided by the average earnings of the reference group (male for gender; White for race/ethnicity). A ratio of 1 indicates parity; values below 1 indicate that the group earns less than the reference group, while values above 1 indicate that the group earns more. The light grey cells suggest statistical insignificant pay gaps.

**TABLE D2 - WAGE RATIOS BY GENDER AND RACE/ETHNICITY, BY REGIONS**

| Years 2022 & 2023 | Wage bracket | female/male | Black/White | Hispanic/White | Asian/White |
|---|---|---|---|---|---|
| 1 | <$50 | 0.921 | 0.837 | 0.935 | 1.094 |
| | $50-$100 | 0.979 | 0.992 | 1.017 | 1.053 |
| | $100-$200 | 1.000 | 0.969 | 1.009 | 1.051 |
| 2 | <$50 | 0.953 | 0.814 | 0.843 | 1.028 |
| | $50-$100 | 0.985 | 0.987 | 1.014 | 1.015 |
| | $100-$200 | 0.981 | 1.000 | 0.983 | 1.048 |
| 3 | <$50 | 0.918 | 0.831 | 0.858 | 1.127 |
| | $50-$100 | 0.957 | 0.973 | 1.041 | 1.048 |
| | $100-$200 | 1.004 | 1.005 | 0.960 | 0.998 |
| 4 | <$50 | 0.970 | 0.814 | 0.784 | 1.013 |
| | $50-$100 | 0.981 | 0.955 | 0.952 | 1.015 |
| | $100-$200 | 0.986 | 0.989 | 0.988 | 0.990 |
| 5 | <$50 | 0.912 | 0.798 | 0.848 | 1.034 |
| | $50-$100 | 0.982 | 1.026 | 0.995 | 0.997 |
| | $100-$200 | 0.997 | 1.030 | 0.977 | 1.092 |
| 6 | <$50 | 0.867 | 0.805 | 0.865 | 1.038 |
| | $50-$100 | 1.016 | 0.950 | 0.968 | 1.031 |
| | $100-$200 | 0.993 | 0.972 | 1.007 | 1.039 |
| 7 | <$50 | 0.882 | 0.844 | 0.967 | 1.082 |
| | $50-$100 | 0.988 | 1.013 | 0.986 | 1.005 |
| | $100-$200 | 0.990 | | | |
| 8 | <$50 | 0.925 | 0.818 | 0.858 | 1.045 |
| | $50-$100 | 0.980 | 1.007 | 0.997 | 1.000 |
| | $100-$200 | 0.983 | 1.020 | 0.950 | 1.078 |
| 9 | <$50 | 0.897 | 0.783 | 0.835 | 0.991 |
| | $50-$100 | 1.004 | 0.988 | 0.997 | 1.063 |
| | $100-$200 | 0.980 | 1.024 | 0.997 | 1.026 |
| 10 | <$50 | 0.862 | 0.846 | 0.969 | 1.030 |
| | $50-$100 | 1.024 | 0.990 | 1.024 | |
| | $100-$200 | 1.005 | 1.015 | | |

Note: Values represent wage ratios by group within each wage bracket and year, based on EPA submissions in Illinois. Ratios are calculated as the average earnings of the group listed divided by the average earnings of the reference group (male for gender; White for race/ethnicity). A ratio of 1 indicates parity; values below 1 indicate that the group earns less than the reference group, while values above 1 indicate that the group earns more. The light grey cells suggest statistical insignificant pay gaps. Empty cells suggest that number of observations fails to meet reporting thresholds, which is minimum of ten observations per group of workers.

**TABLE D3 - WAGE RATIOS BY GENDER AND RACE/ETHNICITY, BY OCCUPATIONAL CATEGORIES**

| Years 2022 & 2023 | Wage bracket | female/male | Black/White | Hispanic/White | Asian/White |
|---|---|---|---|---|---|
| Administrative Support Worker | <$50 | 0.959 | 0.963 | 0.979 | 1.062 |
| | $50-$100 | 0.987 | 0.967 | 0.994 | 1.034 |
| | $100-$200 | 1.012 | 1.003 | 1.012 | 1.020 |
| Craft Worker | <$50 | 0.677 | 0.882 | 0.694 | 0.889 |
| | $50-$100 | 0.978 | 0.998 | 0.976 | 1.014 |
| | $100-$200 | 0.989 | 1.033 | 1.062 | |
| Executive/Senior Level Official or Manager | <$50 | 1.022 | 0.936 | 0.961 | 0.968 |
| | $50-$100 | 0.972 | 0.966 | 0.980 | 1.033 |
| | $100-$200 | 0.986 | 0.995 | 0.974 | 1.016 |
| First/Mid-Level Official or Manager | <$50 | 0.964 | 0.928 | 0.919 | 1.071 |
| | $50-$100 | 0.978 | 0.969 | 0.962 | 1.043 |
| | $100-$200 | 0.991 | 1.000 | 0.987 | 0.989 |
| Laborer or Helper | <$50 | 0.959 | 0.963 | 0.893 | 0.950 |
| | $50-$100 | 1.053 | 1.034 | 0.989 | 1.044 |
| | $100-$200 | 0.970 | 1.002 | 1.028 | 1.017 |
| Operative | <$50 | 0.889 | 0.952 | 0.903 | 0.906 |
| | $50-$100 | 1.042 | 0.961 | 0.982 | 0.985 |
| | $100-$200 | 1.017 | 0.996 | 0.997 | 0.951 |
| Professional | <$50 | 0.967 | 0.917 | 0.941 | 1.050 |
| | $50-$100 | 0.953 | 0.972 | 0.983 | 1.020 |
| | $100-$200 | 0.986 | 0.996 | 0.994 | 1.000 |
| Sales Worker | <$50 | 0.908 | 0.941 | 0.951 | 0.999 |
| | $50-$100 | 0.986 | 0.951 | 0.946 | 1.018 |
| | $100-$200 | 0.976 | 0.964 | 0.973 | 0.982 |
| Service Worker | <$50 | 0.992 | 0.968 | 1.008 | 1.034 |
| | $50-$100 | 1.024 | 0.976 | 0.955 | 0.988 |
| | $100-$200 | 0.987 | 1.040 | 1.023 | 1.027 |
| Technician | <$50 | 0.917 | 0.923 | 0.904 | 1.029 |
| | $50-$100 | 1.000 | 1.004 | 1.011 | 1.032 |
| | $100-$200 | 1.044 | 1.023 | 1.055 | 1.051 |

Note: Values represent wage ratios by group within each wage bracket and year, based on EPA submissions in Illi-nois. Ratios are calculated as the average earnings of the group listed divided by the average earnings of the reference group (male for gender; White for race/ethnicity). A ratio of 1 indicates parity; values below 1 indicate that the group earns less than the reference group, while values above 1 indicate that the group earns more. The light grey cells suggest statistical insignificant pay gaps. Empty cells suggest that number of observations fails to meet reporting thresholds, which is minimum of ten observations per group of workers.

## APPENDIX E: REGRESSION MODEL SPECIFICATIONS

This section reports the estimated results of the preferred regression model specification, estimating wage disparities while controlling for key structural and demographic factors. The model includes fixed effects for year, county, and employer, along with indicators for race/ethnicity and CBA status. By incorporating employer fixed effects, the model allows comparisons within the same firm, accounting for differences in pay practices across organizations. County and year controls capture local labor market variations and time trends, while race and CBA controls adjust for worker characteristics linked to earnings. This approach provides a conservative and policy-relevant estimate of gender and racial wage gaps without introducing additional assumptions about occupational gender composition.

**TABLE E1 - REGRESSION RESULTS FOR WAGE GAPS BETWEEN SPECIFIC DEMOGRAPHIC GROUPS, BY JOB CLASSIFICATION**

| | Gender | White- People of color | White-Black | White-Latinx | White-Asian |
|---|---|---|---|---|---|
| Administrative Support Worker | -0.041*** | -0.066*** | -0.078*** | -0.067*** | -0.041*** |
| | 0.002 | 0.002 | 0.002 | 0.002 | 0.004 |
| Craft Worker | -0.142*** | -0.125*** | -0.139*** | -0.126*** | -0.194*** |
| | 0.004 | 0.003 | 0.004 | 0.003 | 0.009 |
| Executive/Senior Level Official or Managers | -0.182*** | -0.071*** | -0.135*** | -0.165*** | 0.021* |
| | 0.004 | 0.006 | 0.011 | 0.011 | 0.009 |
| First/Mid-Level Official or Manager | -0.102*** | -0.142*** | -0.229*** | -0.249*** | 0.066*** |
| | 0.001 | 0.002 | 0.003 | 0.002 | 0.003 |
| Laborer or Helper | -0.014*** | -0.051*** | -0.041*** | -0.069*** | -0.11*** |
| | 0.001 | 0.002 | 0.002 | 0.002 | 0.005 |
| Operative | -0.076*** | -0.082*** | -0.076*** | -0.089*** | -0.185*** |
| | 0.002 | 0.002 | 0.002 | 0.002 | 0.005 |
| Professional | -0.105*** | -0.049*** | -0.13*** | -0.152*** | 0.052*** |
| | 0.001 | 0.001 | 0.002 | 0.002 | 0.002 |
| Sales Worker | -0.081*** | -0.122*** | -0.129*** | -0.12*** | -0.082*** |
| | 0.001 | 0.001 | 0.002 | 0.002 | 0.003 |
| Service Worker | -0.017*** | -0.054*** | -0.06*** | -0.053*** | -0.052*** |
| | 0.001 | 0.001 | 0.002 | 0.002 | 0.003 |
| Technician | -0.056*** | -0.076*** | -0.09*** | -0.115*** | -0.006 |
| | 0.002 | 0.002 | 0.003 | 0.003 | 0.005 |
| Year FE | Yes | Yes | Yes | Yes | Yes |
| County FE | Yes | Yes | Yes | Yes | Yes |
| Race | Yes | Yes | Yes | Yes | Yes |
| Covered by CBA | Yes | Yes | Yes | Yes | Yes |
| Employer FE | Yes | Yes | Yes | Yes | Yes |
| N | 3145549 | 2970073 | 2150759 | 2185623 | 2970073 |
| R-sq | 0.677 | 0.676 | 0.672 | 0.678 | 0.676 |
| adj. R-sq | 0.677 | 0.676 | 0.671 | 0.677 | 0.676 |

Notes: * p<0.05, ** p<0.01, *** p<0.001. FE refers to fixed effects. "Fixed effects" are a way to control for differences across groups—like counties, employers, or job titles—that don't change over time but might affect wages. For example, if one employer consistently pays more than another, fixed effects account for that pattern. This enables fairer comparisons by isolating the impact of gender or race from employer-specific or county-specific differences. R-squared shows much of the variation in wages the model can explain. It's like a score between 0 and 1: the closer to 1, the better the model fits the data. However, adding more variables always increases R-squared, even if those variables don't really help. Adjusted R-squared fixes that by penalizing unnecessary variables. It gives a more honest measure of how well the model truly explains the wage differences.

The detailed report presents several regression model specifications that build sequentially to assess the robustness of wage gap estimates. The simplest specification includes only year fixed effects, providing an unadjusted baseline. Subsequent models add controls for county of employment to account for geographic wage variation, followed by demographic indicators such as race and ethnicity. Additional specifications include CBA status and employer fixed effects, allowing within-firm comparisons by controlling for differences in pay structures across organizations. One model incorporates the share of women in each occupational job category to account for occupational gender concentration. Across all specifications, the estimated gender and racial wage gaps remain directionally consistent and of similar magnitude, indicating the core findings are robust regardless of the model used.

## APPENDIX F: STEP-BY-STEP OUTLINE OF BUILDING A THRESHOLD-BASED FLAGGING SYSTEM

1. Define Units of Analysis

Decide at which level employers will be flagged:

- Employer-wide average gaps
- Occupational category gaps within employers (by job classification)
- County or establishment-level gaps (for multi-site firms)

2. Choose Wage Gap Metrics

Use one or more standardized metrics to capture disparities:

- Raw average hourly wage gaps by gender and race
- Adjusted wage gaps using regression residuals or controls (e.g., controlling for job title, tenure, hours worked, etc.)

3. Normalize Wage Gap Measures

Ensure gaps are comparable across employers by expressing gaps as percentage differences relative to the dominant group (e.g., male/White workers). Optionally adjust for employer size to avoid over-flagging small firms with few employees.

4. Establish Flagging Thresholds

Decide how wide a gap must be to trigger a flag:

- Set fixed thresholds (e.g., >15% gender gap in average hourly wage). Consider tiered flags:
  - Level 1: Informational (e.g., 5-15% gap)
  - Level 2: Risk – recommended for review (>15-25%)
  - Level 3: High Risk – requires immediate attention (>25%)
- then use relative thresholds (e.g., top 5% most unequal employers by job classification or region).

5. Apply Filters for Valid Comparisons

Reduce false positives by filtering on:

- Minimum group size (e.g., 5+ employees per gender or race group)
- Valid wage ranges (exclude job titles with implausible wage data)
- Standard job categories (focus on roles with consistent classification across employers)

6. Validate the Flagging Algorithm

- Examine flagged vs. unflagged employers for known disparities;
- Compare flagged employers to overall distribution of wage gaps;
- Consult enforcement experts or legal counsel to verify defensibility.

7. Build Output for Enforcement Use

Develop clear outputs for regulatory use:

- A dashboard or report showing:
  - Employer name
  - Job category or unit flagged
  - Gap magnitude
  - Flag level
  - Confidence score or reasons for flagging
  - Filters for agency review (e.g., industry, region, firm size)

8. Plan for Employer Notification and Review

Design a process for:

- Informing flagged employers of their status;
- Allowing employers to submit explanations or corrections;
- Triaging for follow-up investigation, outreach, or audits.

9. Update Thresholds Periodically

- As more data accumulate:
  - Revisit thresholds to reflect natural variance in the labor market;
  - Consider benchmarking against external data (e.g., BLS, ACS);
  - Refine rules as enforcement priorities evolve.

## APPENDIX G: GENDER PAY GAP PUBLISHED BY BLS OVER TIME, SELECTED STATES

| State | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Grouping |
|---|---|---|---|---|---|---|---|---|---|---|
| **United States** | **81.1** | **81.9** | **81.8** | **81.1** | **81.5** | **82.3** | **83.1** | **83** | **83.6** | |
| California | 84.8 | 88 | 83.4 | 88.3 | 89 | 87.6 | 88.2 | 86.8 | 89.9 | compared |
| Florida | 87.4 | 87.1 | 87.9 | 82.6 | 85.1 | 84.1 | 85.6 | 84.2 | 87.9 | |
| Illinois | 83.4 | 79.2 | 77.8 | 77.7 | 80 | 80.1 | 80.7 | 80.3 | 83.6 | |
| Indiana | 79.8 | 84.7 | 78.4 | 79.8 | 73.6 | 77 | 79.6 | 77.6 | 81.9 | bordering |
| Iowa | 78.6 | 76.4 | 81.4 | 77.1 | 80.3 | 83.7 | 82.9 | 82.8 | 81.6 | bordering |
| Kansas | 76.7 | 81.3 | 81.8 | 82.9 | 77.6 | 84.2 | 79.4 | 85.3 | 83.8 | |
| Kentucky | 80.7 | 85.9 | 80.7 | 82.2 | 79.2 | 76.8 | 88.4 | 84.5 | 88.8 | bordering |
| Michigan | 76.8 | 79.6 | 82.4 | 82.2 | 79.5 | 80.6 | 76.2 | 82.5 | 83 | bordering+ |
| Minnesota | 82.4 | 83.2 | 82.3 | 85.5 | 82.3 | 85.8 | 81 | 91 | 83 | |
| Missouri | 77.3 | 79.4 | 79.2 | 80.7 | 78 | 78.7 | 83.4 | 79.5 | 83.9 | bordering |
| Nebraska | 76.2 | 81.5 | 87.3 | 80.2 | 83.6 | 83.1 | 83 | 87.7 | 83.5 | |
| New York | 86.9 | 86.2 | 86.4 | 85.5 | 83.8 | 84.5 | 83.4 | 86.5 | 84.2 | |
| North Dakota | 74.8 | 76.7 | 77.7 | 73.9 | 74.5 | 79.9 | 79.5 | 78.9 | 81.2 | |
| Ohio | 81.2 | 79.3 | 81.8 | 79.2 | 81.4 | 81.9 | 81.5 | 81.8 | 82.1 | bordering+ |
| South Dakota | 79.2 | 76.5 | 79.1 | 82.7 | 78.2 | 85.1 | 82.9 | 82.3 | 78.4 | |
| Texas | 79.1 | 82.2 | 82.1 | 80.5 | 80.9 | 87 | 85.5 | 83 | 83.1 | |
| Wisconsin | 76.8 | 78.4 | 83 | 80.7 | 82.4 | 86.5 | 89.4 | 80.4 | 84.2 | bordering |
| Massachusetts | 81.6 | 84.3 | 80.6 | 85 | 86.5 | 82.2 | 83.5 | 85.8 | 87.2 | compared |
| Rhode Island | 79.6 | 84.3 | 87.1 | 71.8 | 83.6 | 85.5 | 91.5 | 99.6 | 81.9 | compared |

Note: Data are compiled based on annual report of the gender pay gap reported by the Bureau of Labor Statistics (BLS).