

AI Tool Evaluation Report

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1. Introduction

This report investigates the reliability of AI detection tools in distinguishing between human-written and AI-generated academic texts. The focus is on whether formal grammar and frequent nominalization cause human writing to be misclassified as AI-generated.. However, these systems may mistake advanced human writing for AI output.

2. Hypothesis

Human-written texts that use formal, structured language are often misclassified as AI-generated, while simpler AI texts can sometimes evade detection.

3. Tool Selected

Name: QuillBot AI Detector

Requirement: Minimum 40 words per input

Function: Detects whether a text is AI- or human-written based on linguistic patterns

Reason for selection: Freely accessible, commonly used for text detection, and easy to compare results across multiple inputs.

4. Methodology

A set of ten IELTS Writing Task 1-style paragraphs was used for analysis.

- One high-level essay was written by a teacher with a 9.0 IELTS writing score, Travis.
- The researcher's own version (for further comparison).
- Several versions were generated by ChatGPT (GPT-5) using different prompts and linguistic levels.
- Several versions written by volunteers (Mr. Lam Nguyen and an IELTS learner)
- Each version was tested non-continuously multiple times for consistency.
- Results were recorded as the percentage of text detected as 'AI-generated.'

5. Test Results

Version	Description	AI-content %	Observation
1	Human-written (Travis)	59% AI	Consistent misclassification despite authentic writing
CHATGPT'S REWRITTEN VERSIONS BASED ON TRAVIS'S ORGANIZATION AND SELECTED DATA.			
2	GPT-5 ('Human touch')	62% AI	Detector still flagged as AI
3	GPT-5 ('Perfect Band 9')	55% AI	Lower AI percentage, possibly due to less mechanical phrasing
4	GPT-5 ('Academic, Flawless')	100% AI	Detected entirely as AI-generated
5	GPT-5 ('Lower-level academic version')	36% AI	Simplified vocabulary and sentence structure reduced the AI-content percentage considerably.
DIFFERENT APPROACHES TO THE TASK:			
6	Loc, the researcher	0% AI	100% written by me, no assistance from AI. This essay had perfect grammar and was assessed to be around 8.0+ on the IELTS scale by ChatGPT.
7	GPT-5 ('Upgraded version of Loc's writing')	19% AI	All of my sentences changed but only the last sentence was detected to be AI-generated content by Quillbot.
8	Mr. Lam Nguyen's version.	0% AI	Perfect grammar and high level but still recognized as human text.
9	Mr. Lam Nguyen's version with some sentences taken from ChatGPT.	0% AI	Quillbot finds it hard to detect human writing mixed with AI elements.
10	A beginner's version	0%	Trivial result

6. Discussion

The results from the ten tested essays show that Quillbot's AI detector often mistakes well-written human texts for AI-generated ones. When a piece contains formal grammar, precise vocabulary, or frequent nominalization, the tool tends to label it as artificial. This explains why Travis's version, although completely human, was consistently detected as 59% AI, proving both its consistency and flawed criteria.

In contrast, the simplified versions with easier vocabulary scored 0% AI, even when their grammar was flawless. This indicates that lexical complexity and phrasing density influence the detector far more than true writing quality or accuracy. My own essay was also marked fully human, but when GPT-5 upgraded it using slightly denser expressions with nominalizations—especially the sentence with “experienced notable reductions”—the system partially flagged it.

Beyond this, another interesting finding emerged. No instance of blue-highlighted text (Human-written & AI-refined) appeared across any of the ten essays, suggesting that Quillbot rarely recognizes a balance between human and AI input. This further supports the idea that its evaluation focuses narrowly on surface features rather than writing intent or semantic coherence.

Overall, the test confirms that Quillbot's AI detector relies heavily on superficial linguistic patterns rather than real semantic understanding, making it consistent in process but unreliable for judging advanced academic writing.

7. Conclusion

Based on the test cases, the results largely support the hypothesis. AI detectors like Quillbot are likely to struggle to distinguish between genuine human writing and AI-generated text when both use formal, structured language. Future testing could include more essays written by many people of different English levels, along with the usage of AI models and other detectors to confirm whether this pattern is universal or tool-specific.

8. Appendix A – Text Samples

This appendix presents the full text inputs used in the testing process. Each sample corresponds to a version listed in the Test Results Table (Section 5).

Figure A1 – Original Task Question

QUESTION

The graph below shows the percentage of people unemployed in the total labour workforce across 9 countries in 1994 and 2004.

Summarize the information by selecting and reporting the main features, and make comparisons where relevant.

Country	1994	2004
Ireland	14.8%	4.4%
Poland	12.4%	19%
Italy	11.8%	8.4%
Canada	10.6%	7.7%
The UK	9.5%	4.7%
Germany	7%	9.4%
The USA	6%	5.4%
Australia	7.2%	4.7%
Japan	2.7%	4.5%

Note:

Words highlighted like this are detected as AI-generated by Quillbot

Words highlighted like this are detected as AI-generated & AI-refined

Words highlighted like this are detected as Human-written & AI-refined

Sample A1 – High-level human-written version (Travis)

The table compares the proportion of unemployed individuals in the working population across 9 different nations in 1994 and 2004.

Overall, most countries surveyed reported declines in unemployment over the decade, with the exceptions of Japan, Poland, and Germany, where unemployment figures rose. Particularly striking is Poland's persistent struggle with joblessness, which escalated from an already high level in 1994 to become the highest among all surveyed nations a decade later.

Looking first at the countries that achieved modest reductions, the US saw only a marginal improvement, with the unemployment rate declining by just 0.6 percentage points to 5.4% in 2004. Australia, Canada, and Italy registered more significant progress, each achieving a decrease of approximately 3 percentage points. By 2004, their respective joblessness had fallen to 4.7%, 7.7%, and 8.4%.

The UK and Ireland made far more significant strides in tackling unemployment. The UK managed to halve its joblessness rate from 9.5% to 4.7% over the period, aligning with Australia's figure by 2004. Ireland recorded the most striking turnaround: from topping the unemployment table in 1994 with 14.8%, it slashed the figure to just 4.4%, the lowest among all countries surveyed a decade later.

Bucking the general declining pattern, the remaining nations saw the proportions out of work growing. Poland experienced the sharpest increase in unemployment, rising from 12.3% to 19% (the highest figure across the board), making it the most affected nation by 2004. Germany, though facing a less severe upturn, still saw joblessness rise from 7% to 9.4%, placing it second-worst on the chart by the end of the period. Finally, Japan's joblessness figures remained among the lowest in both years, despite climbing from 2.7% to 4.5%.

Sample A2 – GPT-5 ('Human touch')

The table illustrates how unemployment rates changed across nine different countries between 1994 and 2004. It shows the proportion of people without jobs among the working-age population in each nation at those two points in time.

Overall, unemployment tended to fall in most countries during the ten-year period, although Japan, Poland, and Germany went against this trend with slight increases. It is worth noting that Poland's situation stood out the most, as its already high unemployment rate in 1994 grew even further, making it the highest among all the surveyed nations by 2004.

If we look first at countries where only modest improvements were recorded, the United States saw almost no change, with joblessness falling by just 0.6 percentage points to reach 5.4% in 2004. Australia, Canada, and Italy, on the other hand, achieved slightly better progress, each managing to reduce unemployment by around 3 percentage points. By the end of the period, their rates had dropped to 4.7%, 7.7%, and 8.4% respectively.

The United Kingdom and Ireland experienced far more dramatic improvements. In the UK, unemployment was cut by roughly half, decreasing from 9.5% to 4.7%. Ireland's progress was even more remarkable: after recording the highest joblessness rate in 1994 at 14.8%, it managed to bring the figure down to 4.4% ten years later—the lowest of all the nations surveyed.

Sample A3 – GPT-5 ('Perfect Band 9')

The table compares unemployment rates among the working populations of nine countries in 1994 and 2004, illustrating how joblessness changed over the ten-year period.

Overall, unemployment declined in the majority of the countries surveyed, though Japan, Poland, and Germany showed the opposite trend. What stands out most is Poland's situation: already burdened by a high rate of joblessness in 1994, the country experienced a further rise by 2004, ending the period with the highest figure among all nations.

Turning first to nations that recorded only modest improvements, the United States saw a minimal drop of just 0.6 percentage points, bringing its unemployment rate down to 5.4% in 2004. In contrast, Australia, Canada, and Italy achieved more noticeable progress, each reducing joblessness by around three percentage points. Consequently, by 2004, their figures stood at 4.7%, 7.7%, and 8.4% respectively.

Far greater advances were observed in the United Kingdom and Ireland. The UK's unemployment rate was almost halved, falling sharply from 9.5% to 4.7% over the period. Ireland experienced an even more remarkable turnaround: despite starting with the highest unemployment rate in 1994 at 14.8%, it managed to cut this to just 4.4% by 2004, the lowest among all countries surveyed.

Sample A4 – GPT-5 ('Academic, Flawless')

The table presents comparative data on unemployment rates among the working-age populations of nine countries in 1994 and 2004. The figures indicate the extent of change in national unemployment levels over the ten-year period.

In general, the majority of countries experienced declines in unemployment between 1994 and 2004. However, Japan, Poland, and Germany demonstrated the opposite trend, recording increases in joblessness. Poland, in particular, exhibited a notably adverse trajectory, with its unemployment rate rising from an already elevated baseline in 1994 to the highest level among all surveyed nations by 2004.

Among the nations that achieved reductions in unemployment, the United States registered only a marginal improvement, as its rate fell by 0.6 percentage points to reach 5.4% in 2004. By contrast, Australia, Canada, and Italy recorded more substantial progress, each showing decreases of approximately three percentage points. Consequently, unemployment in these countries stood at 4.7%, 7.7%, and 8.4% respectively at the end of the period.

The most significant improvements were observed in the United Kingdom and Ireland. The UK achieved a reduction of almost 50 percent in its unemployment rate, from 9.5% in 1994 to 4.7% in 2004. Ireland experienced an even more dramatic transformation, reducing its rate from 14.8%—the highest in 1994—to only 4.4% in 2004, the lowest figure among the countries considered.

Sample A5 – GPT-5 ('Lower-level academic version')

The table shows information about unemployment rates among working-age people in nine countries in 1994 and 2004. It compares how the levels of joblessness changed in each nation over the ten-year period.

Overall, most countries saw a fall in unemployment between 1994 and 2004. However, Japan, Poland, and Germany experienced the opposite trend, as their unemployment rates went up. Poland's situation was the most serious because its rate, which was already high in 1994, increased further and became the highest among all the countries by 2004.

Among the countries that managed to reduce unemployment, the United States showed only a small improvement, with a drop of 0.6 percentage points to 5.4% in 2004. In contrast, Australia, Canada, and Italy achieved greater progress, each recording a fall of around three percentage points. As a result, their unemployment rates reached 4.7%, 7.7%, and 8.4% respectively by the end of the period.

The biggest improvements were seen in the United Kingdom and Ireland. The UK almost halved its unemployment rate, from 9.5% in 1994 to 4.7% in 2004. Ireland also made remarkable progress, cutting its figure from 14.8%, the highest in 1994, to 4.4% in 2004, which was the lowest rate among all the countries.

Sample A6 – Researcher's first version

The table compares the jobless rates between nine different nations in the years 1994 and 2004.

Overall, the majority of the reported countries witnessed declines in their unemployment rates, while figures for Poland, Germany and Japan followed upward trends. In 2004, Poland's statistics dominated the other countries'.

Poland's proportion of unemployed population rose from 12.4% to almost 20% after 10 years, surpassing Ireland to take the highest position. In comparison, figures for the other eight countries in 2004 remained less than 10 percent. Regarding Germany and Japan, their rates of unemployment climbed moderately by roughly 2 percentage points (7% to 9.4% for the former and 2.7% to 4.5% for the latter).

Looking at countries with decreasing figures, Ireland stood out as the nation with the most significant plunge. In 1994, 14.8% of this country's workforce did not have a job, but this number dropped by approximately 3 times to almost 4% just a decade later. As for Canada, the UK and the UK, joblessness fell by 3 to 5 percentage points, while that of the USA was negligible.

Sample A7 - An upgraded version of my text written by ChatGPT.

The table compares unemployment rates in nine countries in 1994 and 2004.

Overall, unemployment declined in most nations, whereas Poland, Germany, and Japan experienced increases. By 2004, Poland recorded the highest rate of joblessness.

Poland's unemployment rate rose from 12.4% to almost 20% over the decade, overtaking Ireland to reach the top position. By contrast, the other countries maintained levels below 10%. In Germany and Japan, joblessness increased moderately, from 7% to 9.4% and from 2.7% to 4.5%, respectively.

In contrast, Ireland witnessed the most dramatic fall, with its unemployment rate dropping from 14.8% to around 4%, roughly one-third of its 1994 level. Canada, the UK, and Australia also experienced notable reductions of between 3 and 5 percentage points, while the USA recorded only a slight decrease.

The whole text was rewritten by ChatGPT. However, only the last sentence was detected to be AI-generated content, while all the other sentences were believed to be human-written. Interestingly, this sentence contained aspects of nominalization: "notable reductions" and "slight decrease".

Sample A8 - A version written by an English teacher-Mr Lam Nguyen

The table compares the percentages of unemployed people in the total labour force in nine different nations in 1994 and in 2004.

Overall, the unemployment rates rose in Poland, Germany and Japan after a decade, while the other six countries saw a decline in the percentages of jobless people in the workforce. In addition, the most significant decrease in joblessness could be seen in Ireland.

Among the countries in the list, Poland, Germany and Japan witnessed an increase in the unemployment rates to different extents. Poland's figure climbed nearly seven percentage points, from 12.4% in 1994 to 19% in 2004, which was the highest among the nations examined, whereas Germany's and Japan's went up to 9.4% and 4.5% respectively.

The percentages of jobless people in the other six nations were downward after ten years. Ireland experienced the most dramatic improvement. Its figure plummeted by 10.4 percentage points, from 14.8% in 1994 to 4.4% in 2004, which ranked the lowest among the countries in the list. The unemployment rates in the remaining countries declined and varied from around 2% to nearly 4%.

Sample A9 - Mr. Lam Nguyen's version elevated with AI

The table compares the percentages of unemployed people in the total labour force in nine different nations in 1994 and in 2004.

Overall, the unemployment rates rose in Poland, Germany and Japan after a decade, while the other six countries saw a **fall** in the percentages of jobless people in the workforce. In addition, the most significant decrease in joblessness could be seen in Ireland.

Poland, Germany and Japan witnessed an increase in the unemployment rates, each to a different degree. Poland's figure climbed nearly seven percentage points, from 12.4% in 1994 to 19% in 2004, which was the highest among the nations surveyed. **Germany's figure rose moderately from 7% to 9.4%, while Japan's rate increased from 2.7% to 4.7%, though it remained relatively low.**

The percentages of jobless people in the other six nations were downward after ten years. Ireland experienced the most dramatic improvement. Its figure **plunged** by 10.4 percentage points, from 14.8% in 1994 to 4.4% in 2004, **making it the country with the lowest unemployment rate. The UK also saw a notable reduction, from 9.5% to 4.7%.** The unemployment rates in the remaining countries declined and **ranged approximately 2% to 3%.**

Note: The bolded sentences have been refined and elevated using AI assistance to enhance lexical precision, grammatical range, and overall fluency while preserving the original ideas of Mr. Lam Nguyen's version.

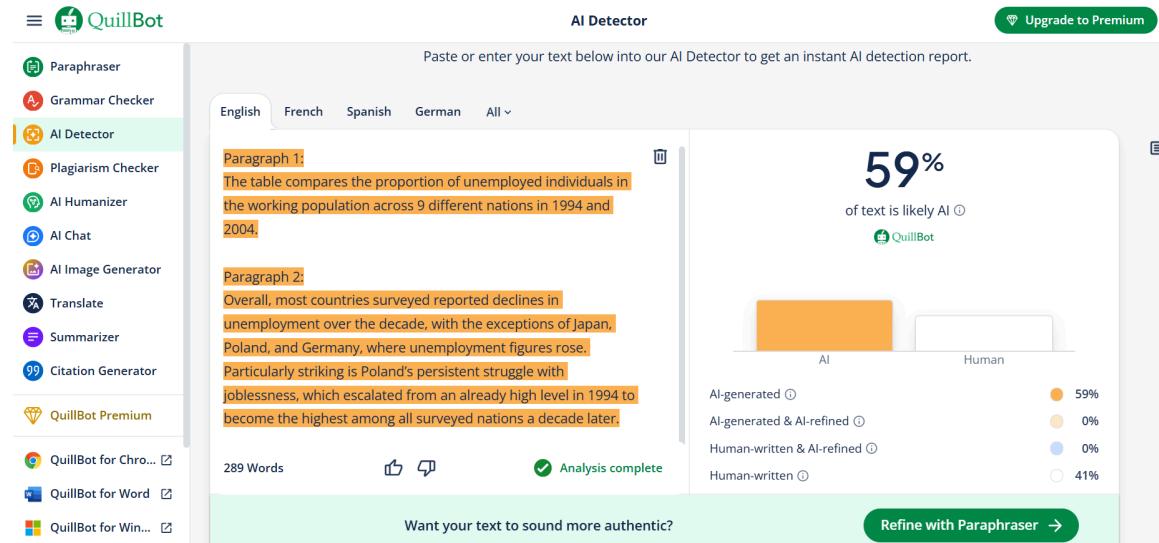
Sample A10- A beginner's version

The table shows the percentage of people unemployed in nine countries in 1994 and 2004. Overall, most countries had lower unemployed rates in 2004 than 1994. In 1994, Ireland had the highest unemployment rate at 14,8% and Japan had the lowest only 2,7%. Poland was slightly lower than Ireland at 12,4%. Italy and Canada also had high rates with 11,8% and 10,6%. The UK and the USA were in the middle with 9,5% and 7,2%. After ten year, Ireland's rate went down to 4,4% which a big improvement. The UK, Australia and the USA also had lower rates in 2004, around 4-5%. On the other hand, Poland's unemployment increased from 12,4% to 19% becoming the highest in 2004. Germany and Japan also had small rises, while Italy and Canada had slight decreases. In general, unemployment fell in most countries between 1994 and 2004, except for Poland, Germany, and Japan.

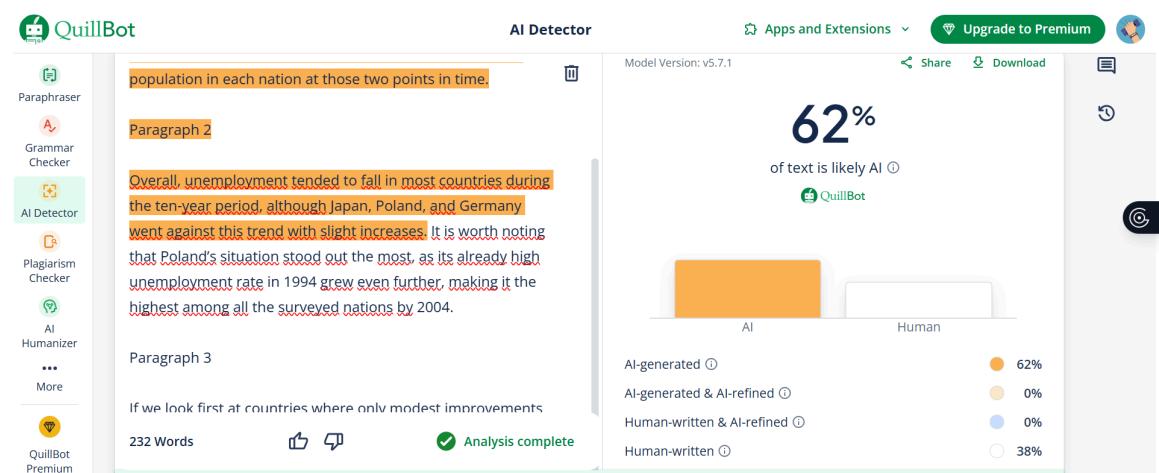
9. Appendix B – AI Detection Screenshots

This appendix includes screenshots of the detection results from Quillbot for each sample. Insert your images neatly below, labeled accordingly.

Screenshot of A1



Screenshot of A2



Screenshot of A3

The screenshot shows the QuillBot AI Detector interface. On the left sidebar, the 'AI Detector' option is selected. The main area displays two paragraphs of text. Paragraph 1: 'The table compares unemployment rates among the working populations of nine countries in 1994 and 2004, illustrating how joblessness changed over the ten-year period.' Paragraph 2: 'Overall, unemployment declined in the majority of the countries surveyed, though Japan, Poland, and Germany showed the opposite trend. What stands out most is Poland's'. Below the text, it says '207 Words' and 'Analysis complete'. To the right, a large orange bar chart indicates '55%' of the text is likely AI. Below the chart, a legend shows: AI-generated (orange) 55%, AI-generated & AI-refined (light orange) 0%, Human-written & AI-refined (blue) 0%, and Human-written (grey) 0%. The status bar at the bottom shows the date as 13/10/2025.

Screenshot of A4

The screenshot shows the QuillBot AI Detector interface. The sidebar shows the 'AI Detector' option is selected. The main area displays two paragraphs of text. Paragraph 1: 'The table presents comparative data on unemployment rates among the working-age populations of nine countries in 1994 and 2004. The figures indicate the extent in national unemployment levels over the ten-year period.' Paragraph 2: 'In general, the majority of countries experienced declines in unemployment between 1994 and 2004. However, Japan, Poland, and Germany demonstrated the opposite trend, recording increases in joblessness. Poland, in particular, exhibited a notably adverse trajectory, with its unemployment rate rising from an already elevated baseline in 1994 to the highest level among all surveyed nations.' Below the text, it says '223 Words' and 'Analysis complete'. To the right, a large orange bar chart indicates '100%' of the text is likely AI. Below the chart, a legend shows: AI-generated (orange) 100%, AI-generated & AI-refined (light orange) 0%, Human-written & AI-refined (blue) 0%, and Human-written (grey) 0%. The status bar at the bottom shows the date as 13/10/2025.

Screenshot of A5

QuillBot

AI Detector

Upgrade to Premium

Paraphraser

Grammar Checker

AI Detector

Plagiarism Checker

AI Humanizer

AI Chat

AI Image Generator

Translate

Summarizer

Citation Generator

QuillBot Premium

QuillBot for Chrome

AI Detector

Paste or enter your text below into our AI Detector to get an instant AI detection report.

English French Spanish German All

The table shows information about unemployment rates among working-age people in nine countries in 1994 and 2004. It compares how the levels of joblessness changed in each nation over the ten-year period. Overall, most countries saw a fall in unemployment between 1994 and 2004. However, Japan, Poland, and Germany experienced the opposite trend, as their unemployment rates went up. Poland's situation was the most serious because its rate, which was already high in 1994, increased further and became the highest among all

202 Words

Analysis complete

36% of text is likely AI

AI-generated 28%

Human

QuillBot

Screenshot of A6

QuillBot Tools Professional Academic Creators Personal Extensions & apps Ask AI Upgrade to Premium

English French Spanish German All

The table compares the jobless rates between nine different nations in the years 1994 and 2004. Overall, the majority of the reported countries witnessed declines in their unemployment rates, while figures for Poland, Germany and Japan followed upward trends. In 2004, Poland's statistics dominated the other countries'. Poland's proportion of unemployed population rose from 12.4% to almost 20% after 10 years, surpassing Ireland to take the highest position. In comparison, figures for the other eight countries in 2004 remained less than 10 percent. Regarding Germany and Japan, their rates of unemployment climbed moderately by roughly 2 percentage points (7% to 9.4% for the former and 2.7% to 4.5% for the latter). Looking at countries with decreasing figures, Ireland stood out as the nation with the most significant plunge. In 1994, 14.8% of this country's workforce did not have a job, but this

178 Words

Analysis complete

0% of text is likely AI

AI-generated 0%

AI-generated & AI-refined 0%

Human-written & AI-refined 0%

Human-written 100%

QuillBot

Want your text to sound more authentic? Refine with Paraphraser →

Screenshot of A7

All Bookmarks

QuillBot Tools Professional Academic Creators Personal Extensions & apps Ask AI Upgrade to Premium

English French Spanish German All

The table compares unemployment rates in nine countries in 1994 and 2004. Overall, unemployment declined in most nations, whereas Poland, Germany, and Japan experienced increases. By 2004, Poland recorded the highest rate of joblessness. Poland's unemployment rate rose from 12.4% to almost 20% over the decade, overtaking Ireland to reach the top position. By contrast, the other countries maintained levels below 10%. In Germany and Japan, joblessness increased moderately, from 7% to 9.4% and from 2.7% to 4.5%, respectively.

127 Words

Analysis complete

19% of text is likely AI

AI-generated 19%

AI-generated & AI-refined 0%

Human-written & AI-refined 0%

Human-written 81%

QuillBot

Screenshot of A8

The table compares the percentages of unemployed people in the total labour force in nine different nations in 1994 and in 2004. Overall, the unemployment rates rose in Poland, Germany and Japan after a decade, while the other six countries saw a decline in the percentages of jobless people in the workforce. In addition, the most significant decrease in joblessness could be seen in Ireland. Among the countries in the list, Poland, Germany and Japan witnessed an increase in the unemployment rates to different extents. Poland's figure climbed nearly seven percentage points, from 12.4% in 1994 to 19% in 2004, which was the highest among the nations examined, whereas Germany's and Japan's went up to 9.4% and 4.5% respectively. The percentages of jobless people in the other six nations were downward after ten years. Ireland experienced the most dramatic improvement. Its figure plummeted by 10.4 percentage points, from 14.8% in 1994 to 4.4% in 2004, which ranked the lowest among the countries in the list. The unemployment rates in the remaining countries declined and remained stable.

181 Words Analysis complete

0%
of text is likely AI

AI Human

AI-generated: 0%
AI-generated & AI-refined: 0%
Human-written & AI-refined: 0%
Human-written: 100%

Screenshot of A9

The table compares the percentages of unemployed people in the total labour force in nine different nations in 1994 and in 2004. Overall, the unemployment rates rose in Poland, Germany and Japan after a decade, while the other six countries saw a fall in the percentages of jobless people in the workforce. In addition, the most significant decrease in joblessness could be seen in Ireland. Poland, Germany and Japan witnessed an increase in the unemployment rates, each to a different degree. Poland's figure climbed nearly seven percentage points, from 12.4% in 1994 to 19% in 2004, which was the highest among the nations surveyed. Germany's figure rose moderately from 7% to 9.4%, while Japan's rate increased from 2.7% to 4.7%, though it remained relatively low. The percentages of jobless people in the other six nations were downward after ten years. Ireland experienced the most dramatic improvement. Its figure plunged by 10.4 percentage points, from 14.8% in 1994 to 4.4% in 2004, which ranked the lowest among the countries in the list.

195 Words Analysis complete

0%
of text is likely AI

AI Human

AI-generated: 0%
AI-generated & AI-refined: 0%
Human-written & AI-refined: 0%
Human-written: 100%

Screenshot of A10

The table compares the jobless rates between nine different nations in the years 1994 and 2004. Overall, the majority of the reported countries witnessed declines in their unemployment rates, while figures for Poland, Germany and Japan followed upward trends. In 2004, Poland's statistics dominated the other countries'. Poland's proportion of unemployed population rose from 12.4% to almost 20% after 10 years, surpassing Ireland to take the highest position. In comparison, figures for the other eight countries in 2004 remained less than 10 percent. Regarding Germany and Japan, their rates of unemployment climbed moderately by roughly 2 percentage points (7% to 9.4% for the former and 2.7% to 4.5% for the latter).

178 Words Analysis complete

Want your text to sound more authentic?

0%
of text is likely AI

AI Human

AI-generated: 0%
AI-generated & AI-refined: 0%
Human-written & AI-refined: 0%
Human-written: 100%

10. References

- Quillbot AI Detector. *Accessed October 2025.*
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