

# Łódź Metropolitan Area

## Labor Market Conditions Report

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As Poland's business services sector cements its position as a high-value European powerhouse - driven by the forces of Talent, Technology, and Transformation cities like Łódź stand at a pivotal strategic moment.

With a competitive labor market and approximately 140 active centers employing over 32,000 specialists, Łódź is emerging as a highly specialized and indispensable hub. The city has also demonstrated strong momentum, recording around 10% year-on-year employment growth between Q1 2024 and Q1 2025 which is above the average for Poland 6.2%

Łódź offers the highest center density in Poland and highly competitive operating costs, reflected in favorable wage levels and attractive office rental prices. Business leaders surveyed by ABSL rated the city highly across multiple strategic attractiveness categories, including securing the top position for the availability of modern office space.

The city's trajectory is defined by the sector's shift from scale to value leadership. By adapting to technological change, Łódź is well-positioned to accelerate its transition toward Generative Business Services. Leveraging its strong academic base, exceptionally low business services turnover of 6.6%, and growing connectivity - including improved rail links to Warsaw - the city is strengthening its role as a leading nearshoring destination.

Łódź is no longer just a capable delivery location; it is becoming a critical hub for future growth and innovation.

# Introduction

## Scope of analysis

- The following analysis of the Investment attractiveness of Łódź focuses on four specific sectors: Business Services, IT/Hi-Tech, Advanced Manufacturing and Biotechnology. The scope of the report covers the most important criteria typically considered by investors in Site Selection projects that Mercer has been delivering for clients in last 15 years. As such, the most important criteria Labour Availability, Labour Cost, Labour Quality and connectivity are considered. It is a common approach to also consider additional criteria like Taxation, Labor Law Rigidity, as well as some company-specific aspects like Brand Perception.
- Since this analysis is not a comparative study, and Łódź typically competes for investments with other Polish cities where its performance on these criteria is similar, we have excluded these factors from the analysis.
- For this analysis, we focused on specific jobs deemed most critical by investors in the relevant sectors when making site selection decisions.
- We would like to emphasize that the labor availability analysis is based on specific geographic areas defined by commuting patterns, which may differ from analyses using administrative boundaries of cities or metropolitan areas.

# Executive summary

## Main conclusions

- If we take into consideration the criteria most commonly used by investors - labor availability, labor cost and labor quality, among the four analyzed economic sectors, **Business Services and IT show the highest investment attractiveness potential as the most mature and modern sectors. They are followed by Biotechnology, which is at an earlier stage of development and Advanced Manufacturing which is expected to face a reduced supply of candidates in the future. However, the trend of reshoring production back to Europe in some sectors might improve this situation.**
- The labor supply of talent in these sectors is strong, supported by a consistent annual flow of graduates from local universities, with approximately 5,500 graduates for Business Services and 2,500 for IT.
- In the case of Advanced Manufacturing, while the current supply of employed talent is adequate, the annual number of graduates from relevant faculties is around 1,000. This indicates that employment opportunities in this sector are not perceived as highly attractive by young people, as evidenced by the stagnant or low growth in student enrollment.
- In the Biotechnology sector, the annual number of graduates is comparable to that of Advanced Manufacturing, while the total talent pool is smaller, at around 10,000. This suggests that meeting new demand in this sector should be achievable without significant challenges.
- Although labor costs in Łódź have risen significantly in recent years, they still remain below the national average for positions beyond basic employment levels.
- In the Business Services sector, the current exceptionally low turnover rate creates favorable conditions for new market entrants. This low turnover reflects a limited number of new job opportunities, which in turn eases upward pressure on salaries.

# Strengths, Weaknesses, Opportunities and Threats

General observations for the Łódź Metropolitan Area based on past site-selection projects

## S

- Location & Infrastructure
- Skilled Workforce
- Cost Advantage especially on higher positions in comparison to other Polish and European cities typically competing for investments
- Government Support

## W

- Demographic Situation
- Limited Market Size, especially in regard to Biotech
- Competition for talents
- Higher cost of labour than in cheaper global locations
- Quality of Life below that of regional competitors

## O

- Rapid Economic Growth
- Strong Business Associations
- Lower costs of living than in other biggest cities in Poland
- Quickly improving quality of living

## T

- Economic uncertainty especially in case of advanced manufacturing and pressure on labor costs
- Talent Drain and structure of migrant workforce
- **Technological** Disruptions
- Expected trend of salary growth

# Demographics and labor market



# Demographic forecasts for Łódź

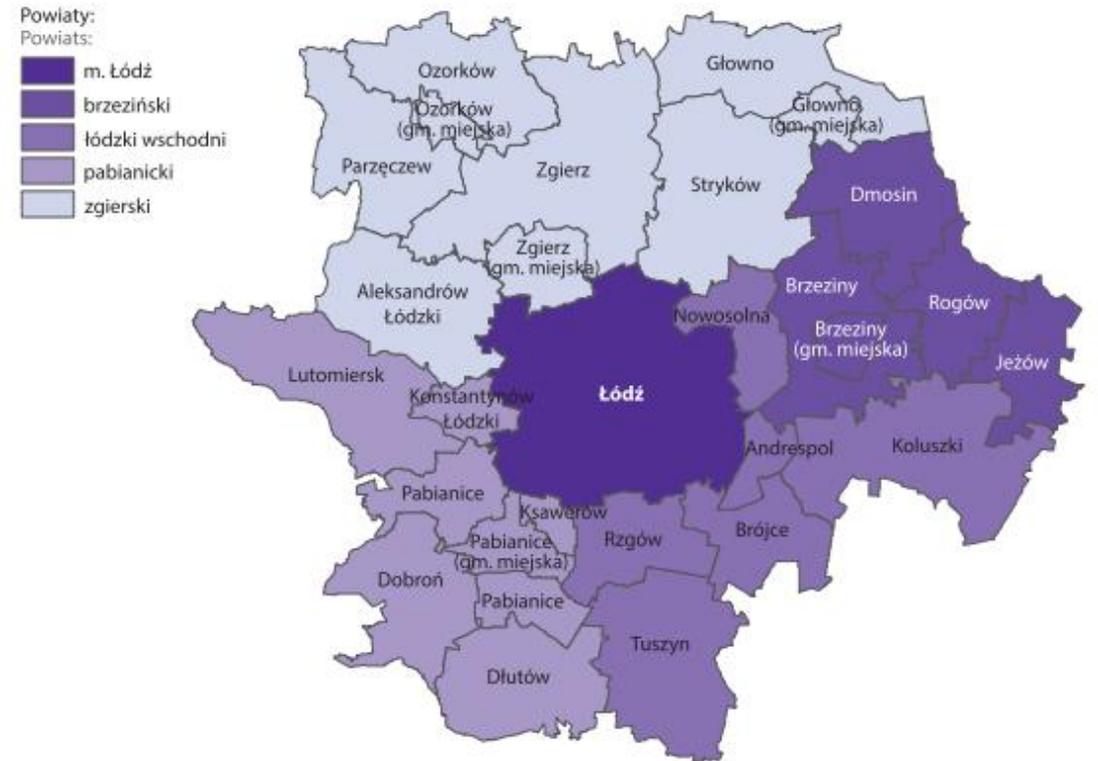
- The demographic situation in Łódź mirrors the broader trends observed across Poland, characterized by prevalent negative patterns. The working-age population is aging rapidly, and over the next decade, almost all of the country's largest cities are expected to experience population declines.
- The population of the Łódź Voivodeship decreased by an average of 9,100 people year over year. Łódź is one of the fastest depopulating voivodeships in Poland. City of Łódź, and the municipalities on its outskirts are experiencing particularly rapid depopulation. This trend has been partially weakened thanks to around 65 thousand of foreign employees working in the region.
- The decline in the region's population is primarily driven by negative natural increase, the decline resulting from migration outflows accounts for approximately 25% of the overall population decline.
- Between 2000 and 2019, the share of people of pre-working age systematically decreased – from 22.0% to 17.0%.
- The demographic forecast predicts further depopulation of the voivodeship and a deepening aging of the population.
- Regardless of long term demographic trend the total employment has been growing in the last years thanks to favorable economical situation, growing quality of labor force and low unemployment.

# Łódź Metropolitan Area



The Łódź metropolitan area, discussed in this report, comprises the Łódź region statistical codes NUTS PL712 and Łódź NUTS PL711. This area encompasses five counties – the City of Łódź, and the following counties: Brzeziny, Łódź East, Pabianice, and Zgierz;

## Łódź Metropolitan Area



Source: Urząd Statystyczny w Łodzi, Łódzki Obszar Metropolitalny w latach 2016-2020

# Population - Łódź Metropolitan Area

## Age structure

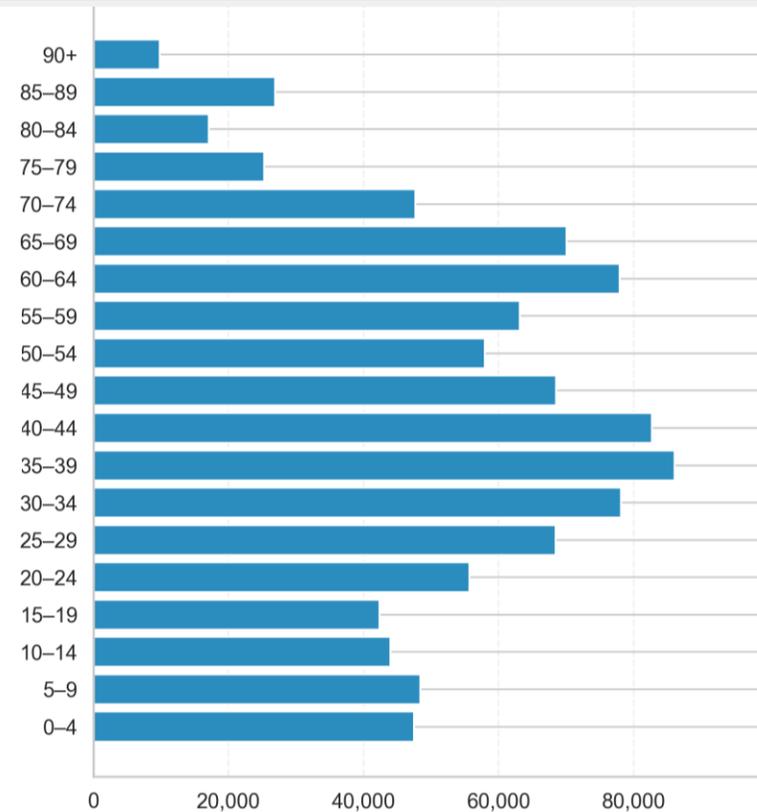


The age structure for the Łódź Metropolitan Area is far from the ideal (triangular) shape. The cohort of children aged 0-14 is relatively narrow. The vast majority of the population is concentrated in the 30-44 age range (the most frequent classes are 35-39 years and 40-44 years) and in the 55-69 age range.

Thus, we are dealing with a decreasing number of people entering the labor market, while the working-age population (15-64 years) is aging. It is worth noting that the 60-64 range (pre-retirement age) is the second most frequent class in the entire distribution series.

As a result, the availability of the youngest employees and the total number of employees in the market is decreasing in the Łódź labour market.

 Age Pyramid Łódź Metropolitan Area, 2024



# Population - Łódź Metropolitan Area

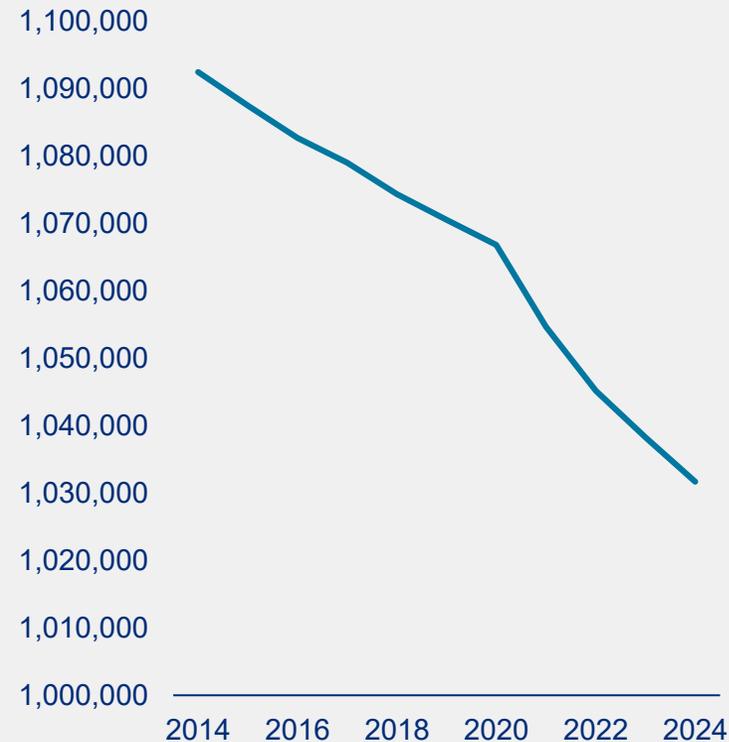
## Population change



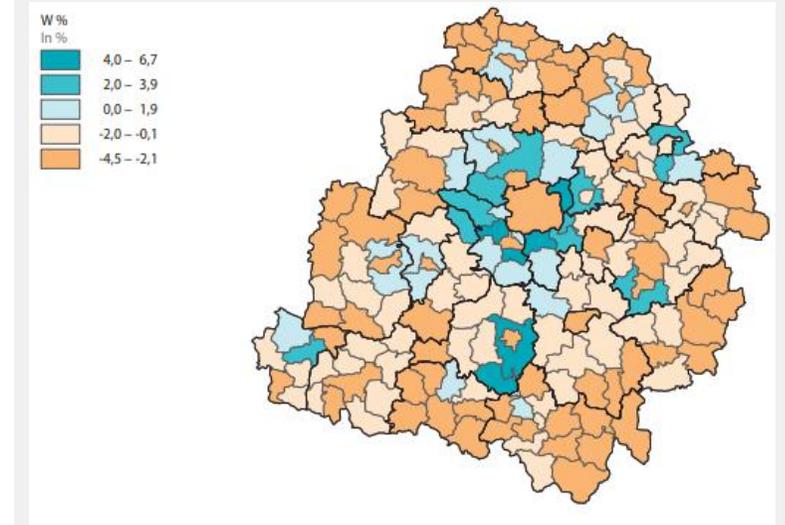
In the years 2021-2024, a downward trend in the population has been visible. This trend is particularly strong in urban areas (e.g. Łódź, Zgierz, Pabianice, Bełchatów). At the same time, the suburbs (e.g. Aleksandrów, Stryków, Nowosolna, etc.) recorded population growth in the same period. This suggests emigration from urban centers to the surrounding municipalities.

While emigration to the suburbs itself should not negatively affect the population of the metropolitan area, according to UN forecasts\*\*\*, the trend will remain unchanged until at least 2030.

### Change in population in NUTS 711 (Łódź) and 712 (Łódź region) areas (sum)\*



### Population Change 2021-2024 (%)\*\*



\*Population on 1 January by age group, sex and NUTS 3 region, EUROSTAT, 2025

\*\*Sytuacja demograficzna województwa łódzkiego w latach 2021–2024, GUS, 2024

\*\*\*World Population Prospects 2024, ONZ, 2024

# Population of Łódź Metropolitan Area

## Concentration of potential candidates

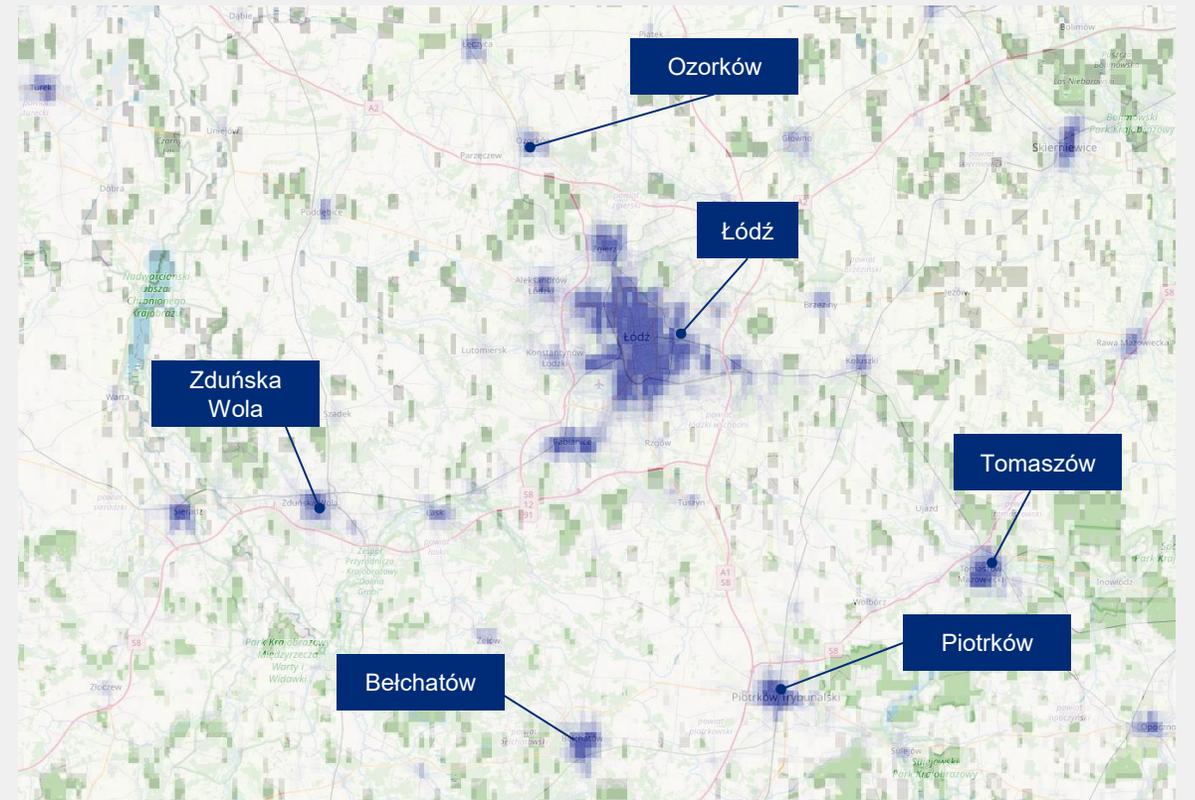


The map shows the most densely populated areas in the Łódź Metropolitan Area. The map was built based on data provided by WorldPop.org and shows the average population density in a given area. The map is based on a grid of square areas with a side of 1 km.

Dark blue places represent the most densely populated areas. These are Łódź with its suburbs (min Ozorków, Pabianice, Zgierz), but also larger centers such as Tomaszów Mazowiecki, Piotrków, Bełchatów, Zduńska Wola, Skierniewice, Koluszki and others.

Those areas can be considered as potential locations for investment projects where finding talents would be easier than in other districts in the region.

## Population Density, people / km<sup>2</sup>



Source: <https://hub.worldpop.org/geodata/summary?id=78847>

# Commuting to Work

## Individuals commuting to work in municipalities other than home



The map shows statistical data on commuting to work in the Łódź Voivodeship to municipalities other than the place of residence. The red and blue colors indicate the directions of population flows for commuting to work, with two colors used to distinguish the directions of commuting - e.g. Łódź (red) and Zgierz (blue).

The width of the line indicates the volume of population flow. The lines scale according to the volume.

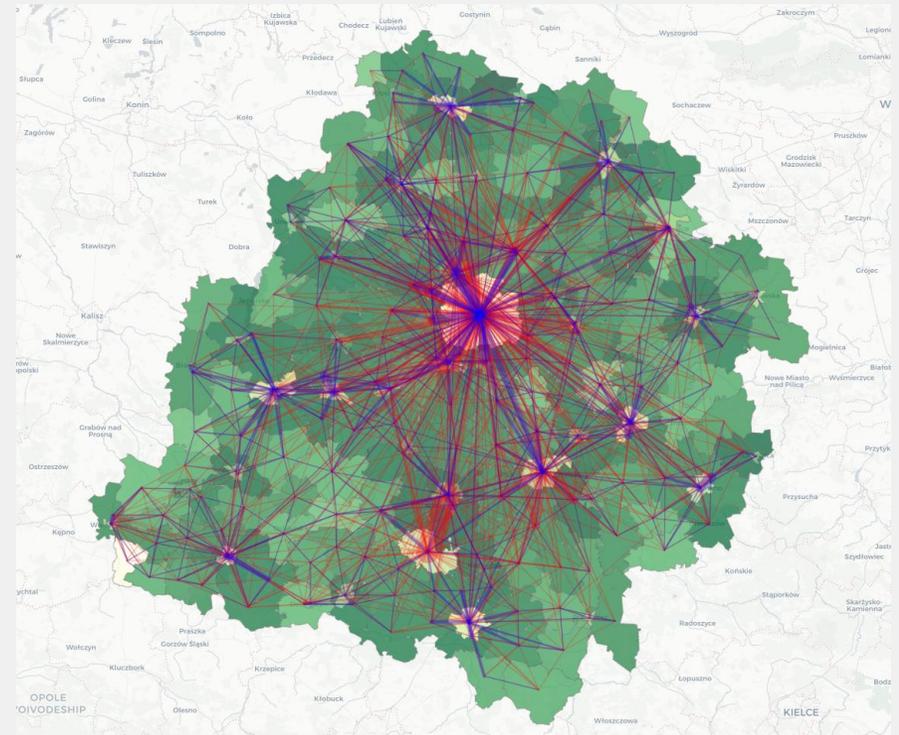
The main population flows here are the pairs of cities Łódź and the Andrespol, Pabianice, Zgierz, Konstantynów Łódzki, Koluszki group, with the volume of flows between Konstantynów and Łódź being closest to equilibrium, and Bełchatów - Kleszczów.

Key centers when it comes to commuting to work are definitely city of Łódź, Zgierz, Pabianice, Konstantynów Łódzki, Kleszczów, Piotrków Trybunalski.

The above data confirms, that broader region should be considered as local labour market for Łódź.



## Volume of individuals commuting to work in municipalities other than their home



Source: Own work based on data provided by GUS table titled: Macierz przepływu ludności związanych z zatrudnieniem – NSP 2021

# Foreigners

## Residence permits granted in Łódzkie Voivodeship



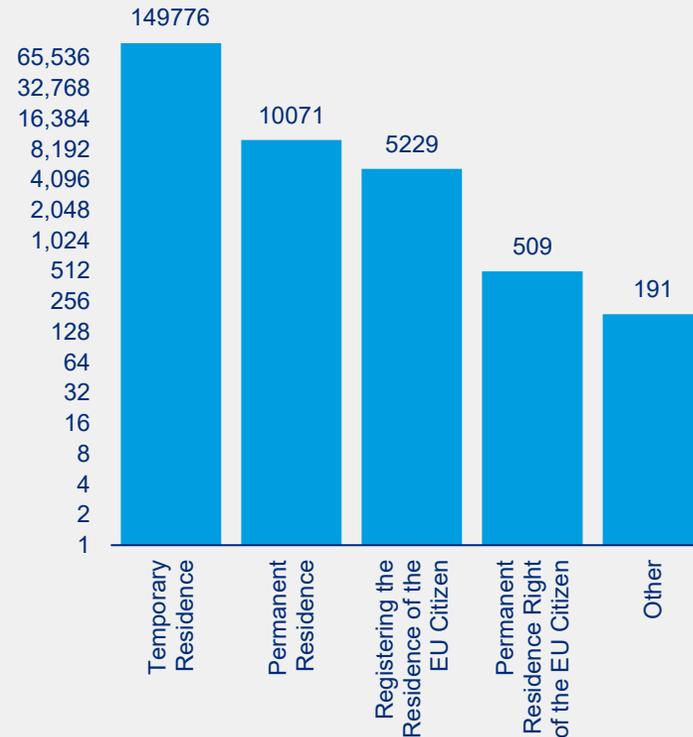
The chart presents residence permits issued to foreigners in the Łódz Voivodeship, divided into classes (permit category).

The vast majority of permits issued are so-called Temporary residence permits (this is as much as 90% of all permits). Another most popular class is permanent residence permits.

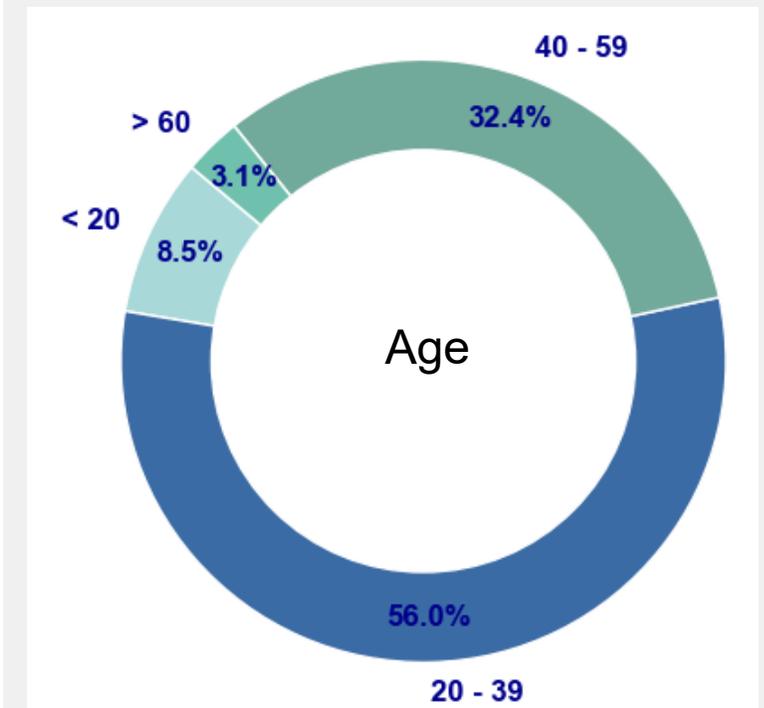
The majority of foreigners who received residence permits are people of working age – over 88% are people between 20 and 59 years of age, what means that most of the foreigners coming to Łódz area support local labour market.



### Residence permits by class, 2024, Łódz Voivodeship (logarithmic scale)



### Age distribution of people who were issued permits



Source: <https://migracje.gov.pl/>

# Foreigners

## Working Foreigners



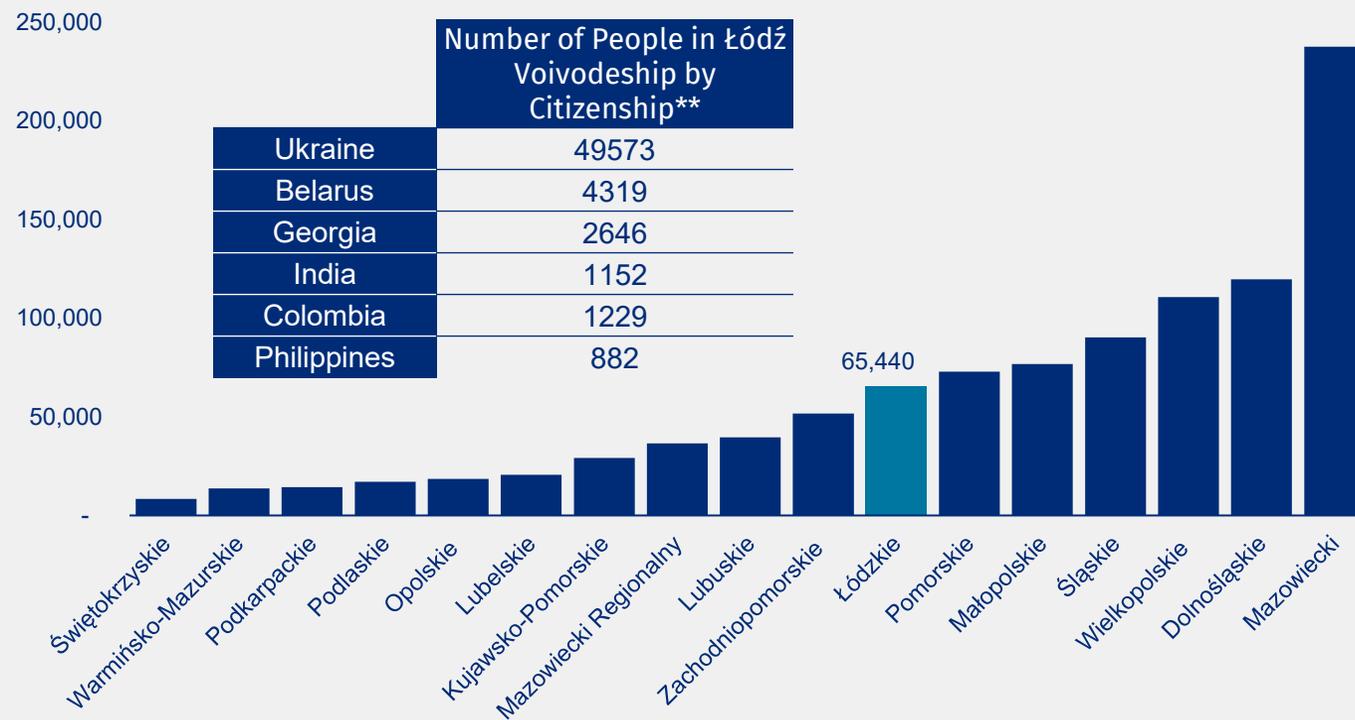
According to Polish Statistical Office, foreigners working in Poland are mainly employed in fields such as administration (20.6%), manufacturing (18.3%), transport and storage (14%), construction (11.8%), trade and repair of motor vehicles (8.3%), gastronomy (6.3%), but also, for example, information and communication (5.4%).

In 2024, in the Łódź Voivodeship, the average monthly number of working foreigners was 65,440 people. This is the seventh highest result in the country, after the Mazowieckie, Dolnośląskie, Wielkopolskie, Śląskie, Małopolskie and Pomorskie voivodeships.

The most represented nations among foreigners are Ukrainians, Belarusians and Georgians.

Over 53% of all foreigners working in the Łódź Voivodeship are women.

 Foreign workers by voivodeship (people), 2024\*



\*Average of 12 months of 2024

\*\* as of December 31, 2024

# Łódzkie – Employment Structure

## Distribution of employment by Industry classification sectors



The Łódzkie Voivodeship has a relatively large diversity between sectors. However, there is a clear dominance of the service sector, which on average accounts for about 35% of employment. The share of this sector is particularly large in large cities - e.g. Łódź, Piotrków Trybunalski.

Industry and energy are the second largest employment sector. Its average share in employment is 25%. It is an important pillar of the economy in the region (especially in the Bełchatów and Wieruszów districts).

Agriculture, forestry and fishing, with an average share of 12.5%, maintain an important role, especially in rural districts, such as Rawski, Sieradzki and Łęczycki.

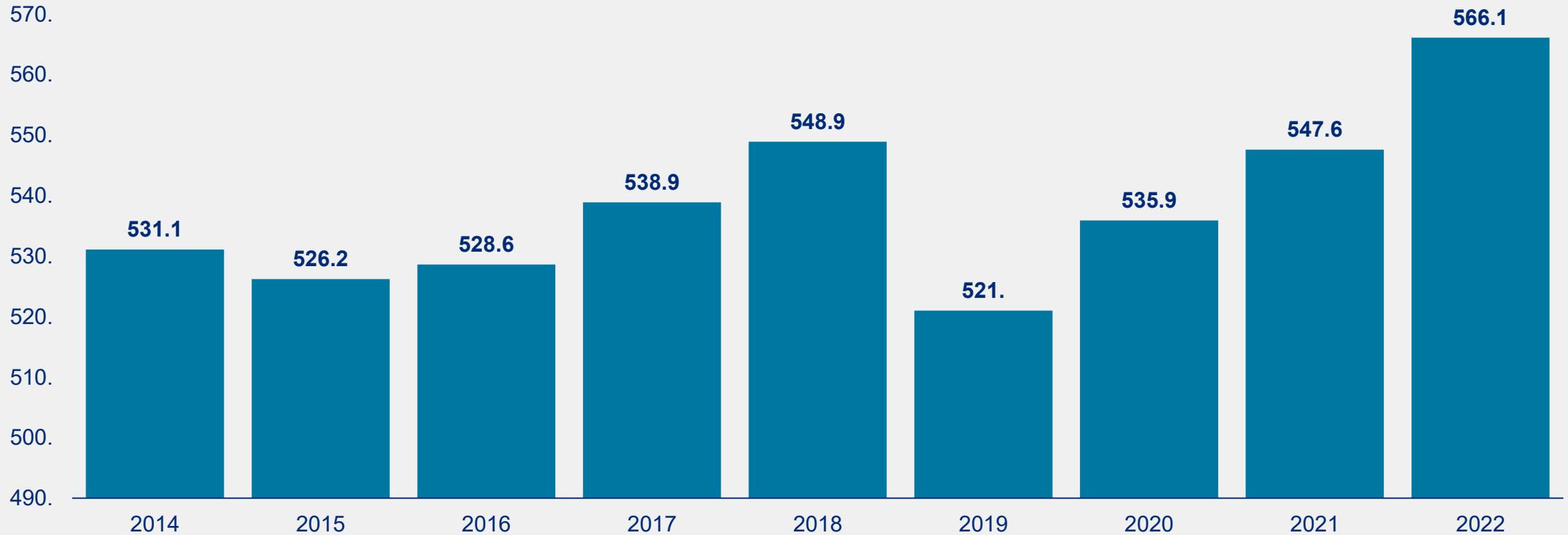
The public sector accounts for an average of almost 1/5 of total employment.

Name	Agriculture, Fisheries and Forestry	Energy / Industry	Construction	Services	Public sector
Powiat bełchatowski	5.6	32.8	7.8	34.8	19.0
Powiat kutnowski	10.4	30.2	4.5	37.0	18.0
Powiat łaski	13.6	24.6	5.7	34.8	21.2
Powiat łęczycki	23.8	23.0	3.2	31.9	18.0
Powiat łowicki	17.3	21.3	6.0	37.9	17.6
Powiat łódzki wschodni	6.6	21.3	6.3	45.6	20.2
Powiat opoczyński	12.6	25.4	7.4	34.3	20.3
Powiat pabianicki	4.3	26.7	6.2	43.2	19.6
Powiat pajęczański	15.4	31.5	7.4	28.8	16.8
Powiat piotrkowski	16.7	22.2	7.1	36.6	17.4
Powiat poddębicki	23.2	22.6	6.6	30.1	17.4
Powiat radomszczański	11.9	31.0	5.5	34.1	17.5
Powiat rawski	25.3	18.5	4.4	36.5	15.3
Powiat sieradzki	20.4	20.9	6.5	30.6	21.6
Powiat skierniewicki	18.1	20.4	7.6	37.5	16.5
Powiat tomaszowski	9.4	23.7	6.4	38.6	21.8
Powiat wieluński	18.8	26.8	6.2	33.0	15.2
Powiat wieruszowski	15.3	41.5	5.1	25.6	12.4
Powiat zduńskowolski	6.4	31.7	7.0	34.8	20.0
Powiat zgierski	5.3	23.1	5.1	45.2	21.3
Powiat brzeziński	13.7	21.9	5.1	39.5	19.8
Powiat m. Łódź	0.6	18.7	4.6	54.1	22.0
Powiat m. Piotrków Trybunalski	1.9	19.2	5.8	50.3	22.8
Powiat m. Skierniewice	2.5	19.8	7.2	46.0	24.5
Average:	12.5	25.0	6.0	37.5	19.0

# Łódź Metropolitan Area – Total Employment

Total employment has been growing regardless of demographic trend.

📍 Employment in the Łódź metropolitan area (thousands)

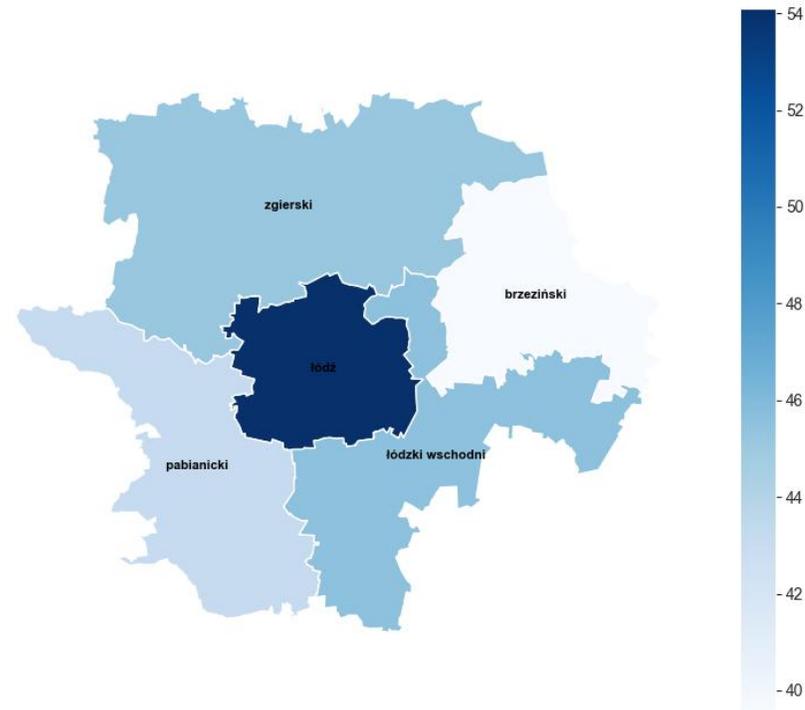


Dane EUROSTAT, 2025

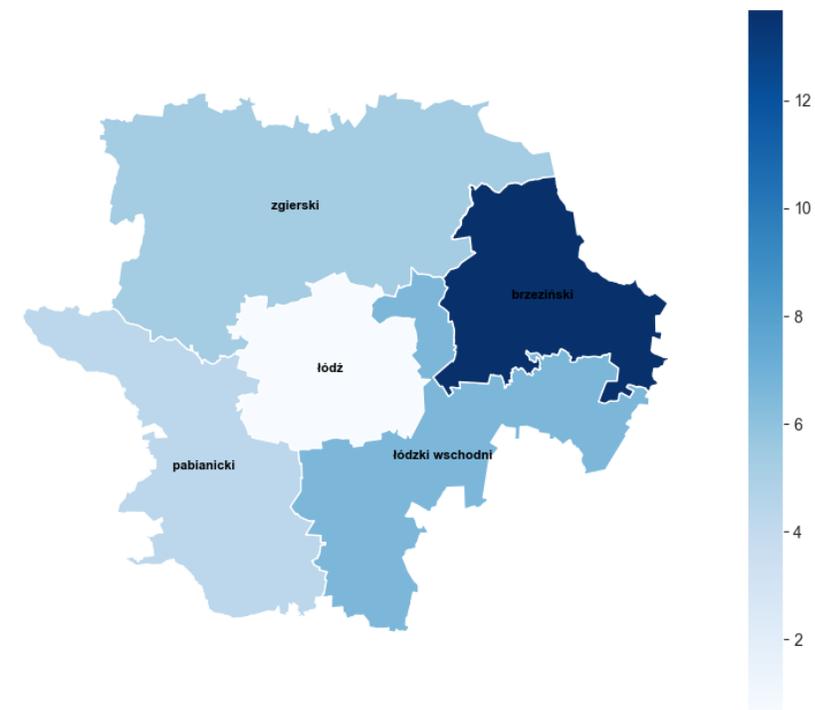
# Łódź Metropolitan Area – Employment Structure

Distribution of employment by Industry Classification Sectors (geographical distribution)

Services as share of total employment



Agriculture, Fishing, Forestry as share of total employment

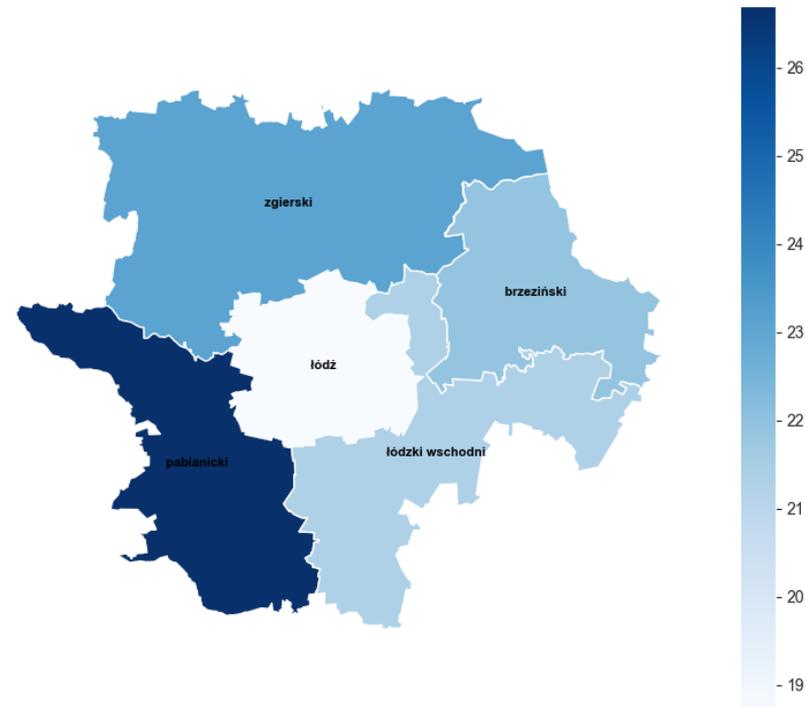


Source: GUS, 2025

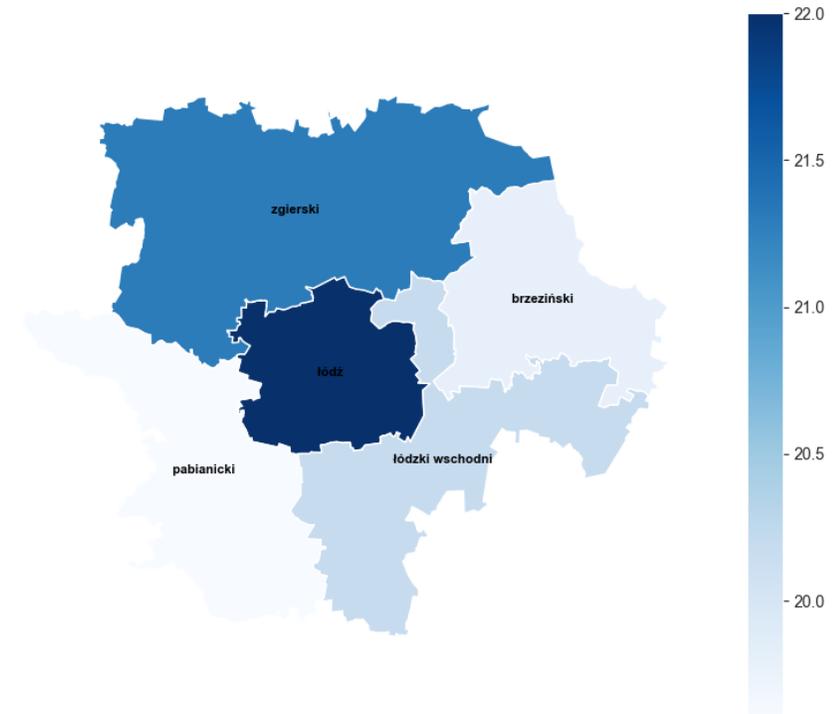
# Łódź Metropolitan Area – Employment Structure

Distribution of employment by Industry Classification Sectors (geographical distribution)

Mining, Energy and processing sectors as share of total employment.



Public administration, education and healthcare as share of total employment

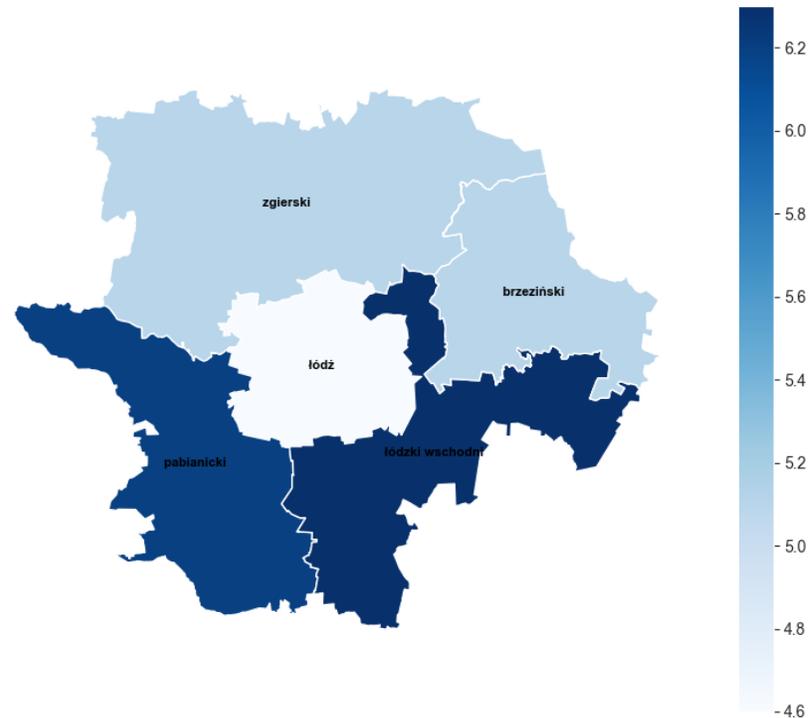


Source: GUS, 2025

# Łódź Metropolitan Area – Employment Structure

Distribution of employment by Industry Classification Sectors (geographical distribution)

## Construction as share of total employment



# Unemployment Rate in Łódź Metropolitan Area

## Comparison of Districts over the years



In all districts of the Łódź Metropolitan Area, there is a downward trend in terms of the unemployment rate.

In general, the unemployment rate in ŁOM tends to exceed the national average.

In the years 2004-2015, the Pabianicki district was characterized by the highest value of this indicator. Since 2016, the highest unemployment rate has been recorded for the Zgierski district.

The lowest unemployment rate has been maintained for years in the Brzeziński district.

Since 2018, the unemployment rate has remained at a similar level, i.e. between 5% and 6%.

	POLSKA	ŁÓDZKIE	Powiat łódzki wschodni	Powiat pabianicki	Powiat zgierski	Powiat brzeziński	Powiat m. Łódź
2004	19.50%	21.50%	20.60%	25.80%	20.80%	18.40%	19.00%
2005	17.90%	20.00%	19.10%	25.30%	18.00%	16.40%	17.60%
2006	14.70%	16.80%	16.00%	20.50%	15.50%	11.70%	14.80%
2007	11.20%	12.20%	10.70%	15.30%	13.10%	8.50%	11.20%
2008	9.20%	6.80%	10.00%	13.10%	10.70%	6.80%	9.50%
2009	11.90%	9.30%	14.10%	15.50%	12.40%	9.60%	12.10%
2010	12.20%	10.60%	14.40%	15.80%	14.50%	10.00%	12.40%
2011	12.90%	11.30%	16.50%	16.80%	15.30%	11.00%	12.50%
2012	14.00%	12.60%	17.50%	18.80%	16.20%	12.00%	13.40%
2013	14.10%	13.00%	16.60%	18.40%	15.60%	12.30%	13.40%
2014	11.80%	11.50%	13.70%	14.30%	13.10%	10.70%	11.40%
2015	10.30%	10.10%	11.40%	12.60%	12.50%	9.50%	9.70%
2016	8.50%	9.20%	9.60%	10.20%	10.50%	7.90%	8.20%
2017	6.70%	8.10%	7.80%	7.80%	7.60%	6.30%	6.60%
2018	6.10%	7.00%	6.90%	6.90%	6.90%	5.40%	5.80%
2019	5.40%	6.10%	6.20%	5.60%	6.80%	4.80%	5.20%
2020	6.20%	6.60%	6.80%	6.40%	7.50%	6.00%	6.30%
2021	6.10%	5.80%	6.50%	5.50%	7.80%	5.80%	5.80%
2022	5.50%	5.80%	5.80%	5.10%	7.70%	4.50%	5.20%
2023	5.40%	5.70%	5.60%	5.30%	7.40%	4.40%	5.10%
2024	5.40%	5.50%	6.00%	5.40%	7.00%	4.50%	5.10%
Trend							

# Employee Availability

2

# Section Summary

## IT/HiTech

- There are around 60 thousand talents working in IT/Hi-Tech roles in Łódź.
- It is worth noting that typically scarce and highly sought-after roles—such as Data Science, Cloud Engineering, DevOps, Machine Learning, and Cyber Security—are well represented in Łódź. This highlights the city's strong potential to attract high-tech and IT investors.
- The labor market is bolstered annually by approximately 2,500 new graduates from local universities, alongside a student population of around 12,500, ensuring a continuous growth in labor supply.
- According to Mercer, labor availability for in-demand IT and Hi-Tech talent is very strong, with these sectors showing the highest potential for growth in recent years.
- An employee turnover rate of approximately 10% is considered healthy, indicating that demand for talent is moderate. This balance provides employees with opportunities to find more attractive positions, while enabling employers to attract qualified candidates without the need to offer additional salary premiums.

# Section Summary

## Business services

- The availability of candidates for the Business Services sector in Łódź is very strong and is expected to remain so due to the large number of graduates from relevant faculties in coming years. We observe substantial labor pools engaged in tasks beyond basic functions like invoicing or help desk support, with an increasing share involved in more advanced processes and roles. A significant number of professionals are working in areas such as HR, Data Analytics, and Project Management, reflecting the ongoing transformation of Łódź's business services market into a more highly skilled environment.
- Most of the skills required by modern business services like analytical skills, data analysis, financial analysis, marketing are well represented in Łódź together with more typical like accounting, customer service, SAP.
- The growth potential and attractiveness of Łódź in this sector will remain stable and one of the most favorable in Poland.
- Currently we can observe very low level of employee turnover which is a signal of low demand for candidates in this sector what makes the investment attractiveness bigger. We do not expect reversing this situation in the nearest years.

# Section Summary

## Advanced manufacturing

- The availability of candidates for key roles in the Advanced Manufacturing sector in Łódź is relatively strong. The city hosts numerous manufacturing plants, including operations by leading global players in the industry.
- There is a substantial supply of specialists in key roles such as Supply Chain management, Process Engineering, Manufacturing Engineering, Production Planning, and Quality Assurance in Łódź.
- Łódź has a substantial supply of specialists in critical roles including Supply Chain Management, Process Engineering, Manufacturing Engineering, Production Planning, and Quality Assurance.
- One factor impacting that is the level of salaries being lower than in top attractive sectors locally. In general we see that trend as well in other regions of Poland.

# Sector Summary

## Biotechnology

- The labor market for the Biotech sector in Łódź is relatively small compared to the other three analyzed sectors, with approximately 10,000 professionals employed in positions most sought after by investors.
- A strong growth potential in the Biotech sector is indicated by the annual influx of approximately 1,000 graduates entering the labor market, representing around 10% of employment in key roles. Consequently, Mercer views the potential for attracting investors to this market segment as high.
- Given that the most represented roles in the sector are related to research and laboratory work, alongside significant representation in regulatory affairs and clinical trials, the greatest investment potential lies in Research and Development.

# Catchment Area



## Functional Area Definition

In order to determine a realistic number of inhabitants in the functional area and carry out more accurate calculations, a so-called agglomeration functional area was designated, which begins in the geometric center of the city of Łódź and includes all areas accessible within 45 minutes from this place by car or public transport.

The area was determined using the [api.geoapify.com](https://api.geoapify.com) application and plotted on a population density map downloaded from [www.worldpop.org](https://www.worldpop.org). Thanks to these steps, the total population living in the functional area was estimated. This value was used to estimate the population for individual positions in the report.

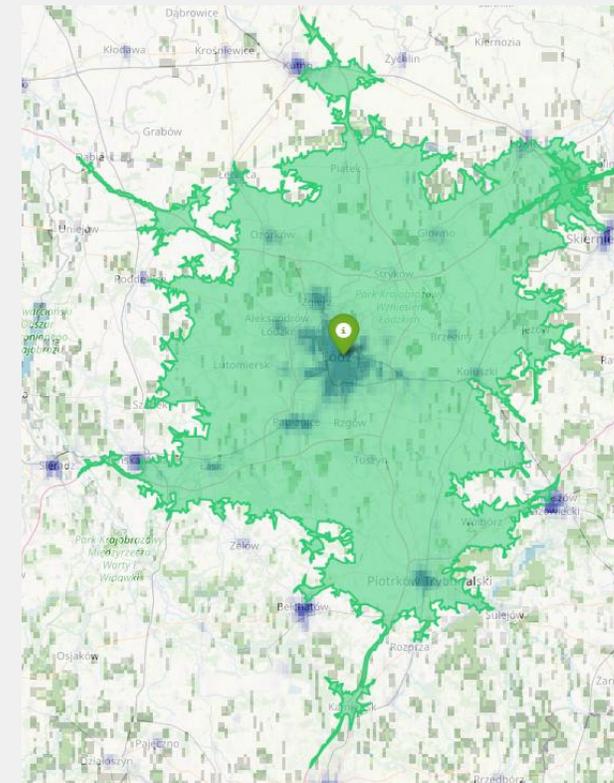
This is an area reaching beyond Piotrków Trybunalski, up to Kamieńsk in the south, the suburbs of Zduńska Wola, the suburbs of Kutno in the north, and the suburbs of Łowicz in the east (but not including these cities).

**The total estimated population in this designated area is:**

1,354,101 people.



## Catchment Area of the Metropolitan Area of Łódź



Source: <https://hub.worldpop.org/geodata/summary?id=78847>

# Methodology for Labor Force Estimates

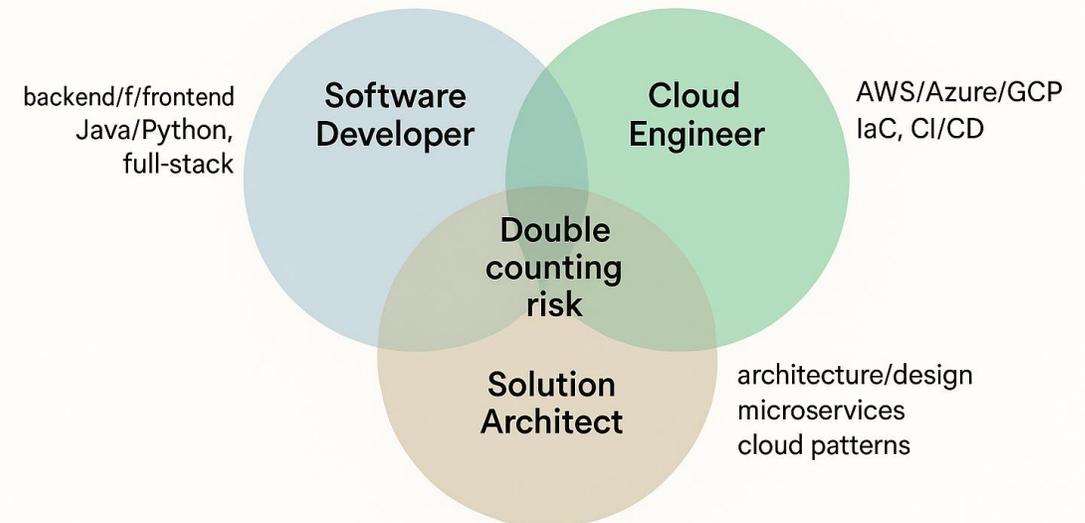


## Methodological note

All labor force supply estimates shown in the following slides have been calculated using data from the International Labor Organization (in particular, the share of highly skilled workers in the economy), the data from EUROSTAT on employment by sector in the applicable NUTS-3 areas, the data from worldpop.org for the population density estimates, as well as openstreetmap.org api for the isochrone generation. The data has been normalized using LinkedIn data and Mercer's Total Remuneration Survey.

All of the above components have been fed in order to provide indicative supply of talent for individual role groups and are to a large degree based on skills of the labor force. Please note that there might be a varying degree of overlap between these roles. For example, data analysts may also be accounted for while estimating the pool for data scientists, software architects almost always have a software development background, etc. With the above in mind, it is important to note that titles shown in the coming pages **are not harmonized at the person level**. Interpret these numbers as indicative supply proxies rather than definitive unique workforce headcounts.

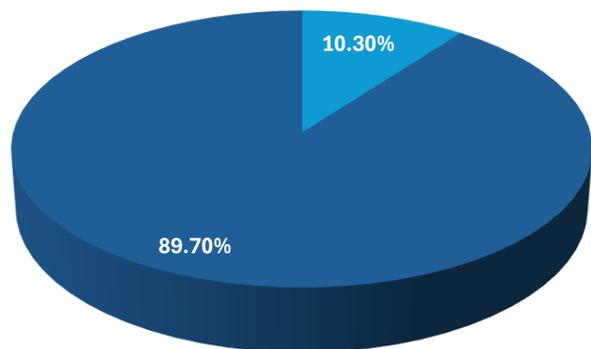
## Catchment Area of the Metropolitan Area of Łódź



# Labor Supply in IT

Absolute number of individuals available within the catchment area (non-duplicated)

Total turnover\* in the IT sector,  
last 12 months (November 2024-  
2025) in Łódź Metro Area



■ Employees who switched jobs ■ Tenured employees

\*Total turnover is calculated using the following formula: the number of employees that have left the company within the last 12 months divided by the average headcount within the last 12 months

## Turnover

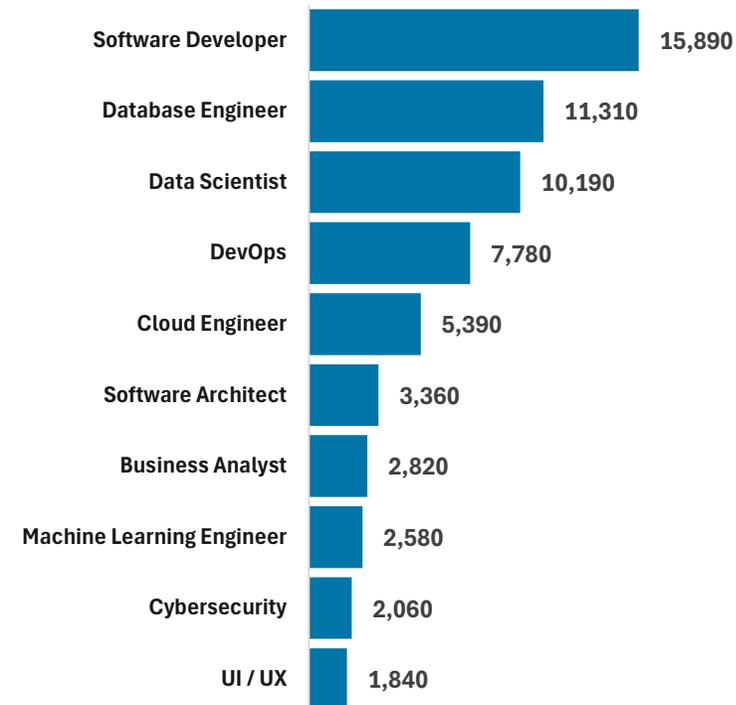
The total turnover in IT in Łódź is at a healthy 10,5%, which is comparable to the national average.

## Labor supply

Łódź's IT market shows a deep bench in core engineering and data: the largest visible pools are in software development, with substantial capacity in database engineering and data science, and mid-sized cohorts in DevOps and cloud engineering. Supply thins for more specialized roles—software architecture, machine learning, cybersecurity, and UI/UX—where targeted sourcing or upskilling may be needed.

With IT turnover around the national average, the market appears active but not overheated, supporting replacement and growth hiring while keeping competition manageable.

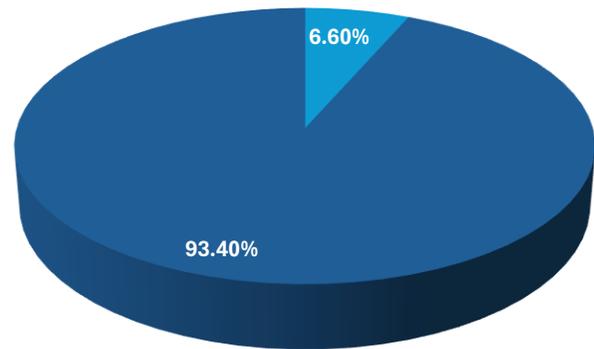
## Labor Supply in Łódź Metropolitan Area (individuals) split by jobs



# Labor Supply in Business Services

Absolute number of individuals available within the catchment area (non-duplicated)

**Total turnover\* in the Business Services sector, last 12 months (November 2024-2025) in Łódź Metro Area**



■ Employees who switched jobs ■ Tenured employees

\*Total turnover is calculated using the following formula: the number of employees that have left the company within the last 12 months divided by the average headcount within the last 12 months

## Turnover

The total turnover in Business Services sector in Łódź is at 6.60%, which is significantly below the national average of 8.3%.

## Labor supply

The largest local pools in this sector sit in finance/accounting (e.g., accounts/AR), HR, and data/analyst talent, with substantial mid-tier availability in project management, customer service, and IT helpdesk; by contrast, compliance, procurement, and other specialist functions are comparatively smaller. This profile is consistent with a strong SSC/BPO footprint and a diversified industrial base—supporting good near-term hiring feasibility for transactional and analytical back-office roles, plus PM and service operations.

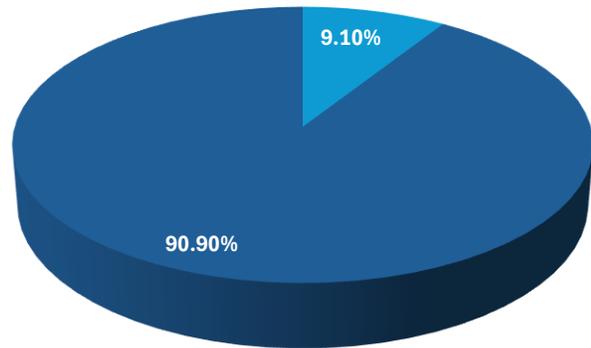
**Labor Supply in Łódź Metropolitan Area (individuals) split by jobs**



# Labor Supply in Manufacturing

Absolute number of individuals available within the catchment area

**Total turnover\* in the Manufacturing sector, last 12 months (November 2024-2025) in Łódź Metro Area**



■ Employees who switched jobs ■ Tenured employees

\*Total turnover is calculated using the following formula: the number of employees that have left the company within the last 12 months divided by the average headcount within the last 12 months

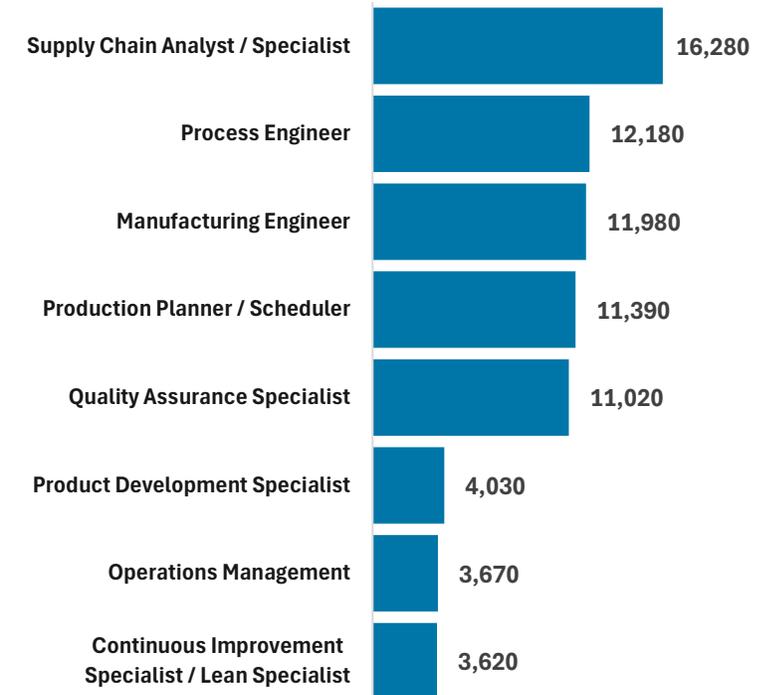
## Turnover

The total turnover in manufacturing sector in Łódź is at 9.10%.

## Labor supply

Łódź's manufacturing talent pool is strongest in supply chain and core engineering/planning roles: the largest visible cohorts are Supply Chain Analyst/Specialist (16,280), Process Engineer (12,180), Manufacturing Engineer (11,980), Production Planner/Scheduler (11,390), and Quality Assurance Specialist (11,020), with smaller but present pools in Product Development Specialist (4,030), Operations Management (3,670), and Continuous Improvement/Lean (3,620). This mix suggests good feasibility for scaling planning, QA/QC, and process roles, while more specialized or strategic functions (product development, CI/Lean) may require targeted sourcing.

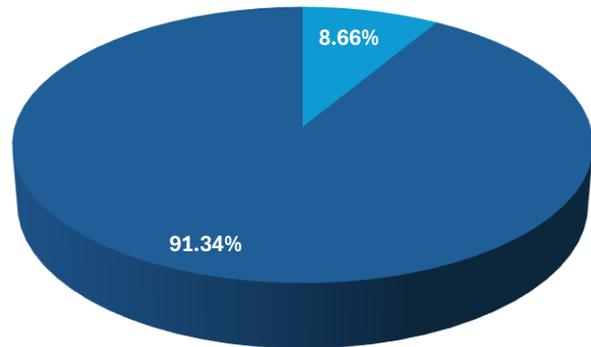
**Labor Supply in Łódź Metropolitan Area (individuals) split by jobs**



# Labor Supply in Biotechnology

Absolute number of individuals available within the catchment area

**Total turnover\* in the Manufacturing sector, last 12 months (November 2024-2025) in Łódź Metro Area**



■ Employees who switched jobs ■ Tenured employees

\*Total turnover is calculated using the following formula: the number of employees that have left the company within the last 12 months divided by the average headcount within the last 12 months

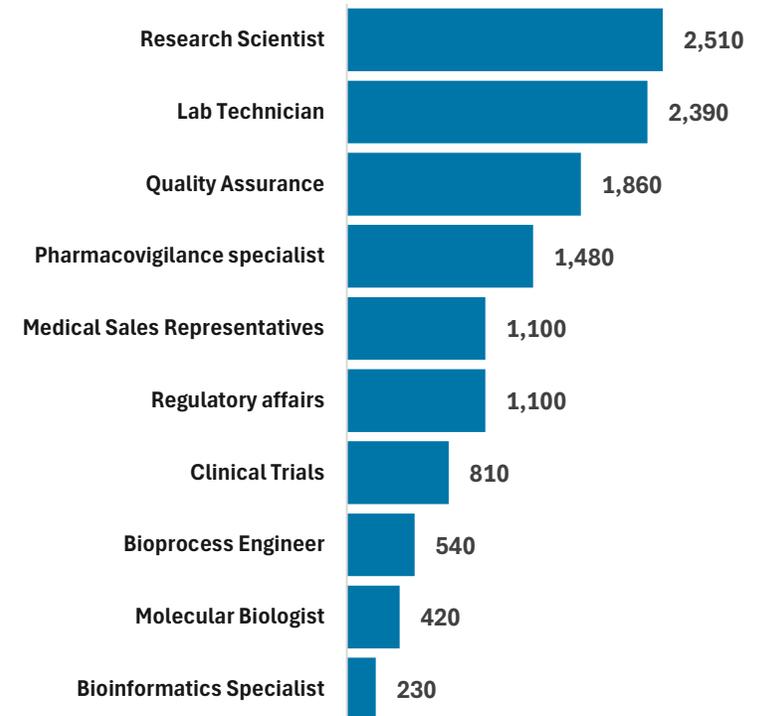
## Turnover

The total turnover in manufacturing sector in Łódź is at 9.10%.

## Labor supply

Łódź's biotechnology talent pool is modest and research-leaning: the largest visible cohorts are Research Scientists (~2,510) and Lab Technicians (~2,390), followed by quality/compliance roles—Quality Assurance (~1,860), Pharmacovigilance specialists (~1,480), and Regulatory Affairs and Medical Sales (each ~1,100). Specialist sub-segments are materially smaller—Clinical Trials (~810), Bioprocess Engineers (~540), Molecular Biologists (~420), and Bioinformatics (~230)—implying thinner local availability for biomanufacturing scale-up and computational biology, where targeted sourcing or upskilling may be needed.

**Labor Supply in Łódź Metropolitan Area (individuals) split by jobs**



# Additional Metrics

% of employees  
indicated as top  
performers:  
6.88%

% of employees  
promoted in the  
regional economy:  
4.5%

% of employees with  
tenure below 12  
months (new hires)  
7.03%

# Common Skills

## Most commonly listed skills in Łódzkie Metropolitan Area, split by industry

IT	Professional Services	Manufacturing	Biotechnologies
SQL	Analytical Skills	Analytical Skills	Analytical Skills
Git	Data Analysis	SAP	Pharmacy
Java	SAP	Data Analysis	Good Manufacturing Practice
JavaScript	Accounting	Continuous Improvement	Accounting
Python	Recruiting	AutoCAD	SAP
Linux	Financial Analysis	5S	Financial Analysis
Jira	GAAP	Manufacturing Process Improvement	Good Laboratory Practice
CSS	Marketing	PDCA	HACCP
SCRUM	Financial Reporting	Supply Chain Management	Manufacturing Process Improvement
Docker	Customer Service	Lean Manufacturing	Business Process Improvement

# Largest White-Collar Employers by Function

IT	Professional Services	Manufacturing	Biotech
Fujitsu	Nordea	BSH Sprzęt Gospodarstwa Domowego Polska	Barry Callebaut Group
mBank S.A.	Philips	Barry Callebaut Group	Takeda
Ericsson	mBank S.A.	ABB	Adamed Pharma
TomTom	Fujitsu	Takeda	McCormick & Company
Nordea	Rossmann Polska	Corning Incorporated	Aflofarm Farmacja Polska
GFT Technologies	McCormick & Company	Adamed Pharma	DOZ S.A.
Rossmann Polska	Barry Callebaut Group	McCormick & Company	Tate & Lyle
Sii Poland	Takeda	Amcor	Polska Grupa Farmaceutyczna S.A.
Commerzbank Digital Technology Centre Poland	BSH Sprzęt Gospodarstwa Domowego Polska	Hutchinson	Mabion S.A.
Accenture	Tate & Lyle	Procter & Gamble	Sandoz

# Quality of Candidates

3

# Higher Education Institutions

There are 19 higher education institutions operating in Łódź. This includes both public and private institutions.

Some of the schools (Uniwersytet Łódzki, Uniwersytet Medyczny w Łodzi, or Politechnika Łódzka) are generally highly regarded in Poland (they have strong position in the national rankings of faculties and universities).

Undoubtedly, the three strongest schools, in terms of prestige and volume of students are Uniwersytet Łódzki, Politechnika Łódzka and Uniwersytet Medyczny. These three are also featured in International rankings like QS University Rankings and THE Education Ranking

	QS University Rankings 2026	Times Higher Education Ranking 2026	Perspektywy 2025	Grade Awarded by the Ministry of Higher Education (range)*
Akademia Humanistyczno-Ekonomiczna (AHE) w Łodzi			83	B+
Akademia Muzyczna (AMUZ) im. Grażyny i Kiejstuta Bacewiczów w Łodzi				A+
Akademia Sztuk Pięknych (ASP) im. Władysława Strzemińskiego w Łodzi				A
Państwowa Wyższa Szkoła Filmowa, Telewizyjna i Teatralna (PWST) im. Leona Schillera w Łodzi	not ranked*			A-B
Politechnika Łódzka (PŁ)	1001	1501	9	A+-B+
Polski Uniwersytet Wirtualny (PUW)				
Spółeczna Akademia Nauk (SAN) Łódź			42	A-B+
Szkoła Wyższa Ekonomii i Zarządzania w Łodzi (SWEiZ)				
Uczelnia ASBiRO				
Uczelnia Nauk Społecznych (UNS)				
Uniwersytet Łódzki	951	1501	23	A+-B+
Uniwersytet Łódzki (UŁ)				
Uniwersytet Medyczny w Łodzi		801	12	A-B+
Uniwersytet WSB Merito w Łodzi				
Wyższa Szkoła Biznesu i Nauk o Zdrowiu w Łodzi				
Wyższa Szkoła COSINUS				
Wyższa Szkoła Finansów i Informatyki (WSFI) im. prof. J. Chechlińskiego				
Wyższa Szkoła Kosmetyki i Nauk o Zdrowiu (WSKiNoZ)				
Wyższa Szkoła Sztuki i Projektowania (WSSiP) w Łodzi				

\*The ranking lists the University but did not rank it

Sources: <https://www.topuniversities.com/world-university-rankings>;

<https://2025.ranking.perspektywy.pl/ranking/ranking-uczelni-akademickich/>

<https://radon.nauka.gov.pl/dane/ewaluacja-dzialalnosci-naukowe>

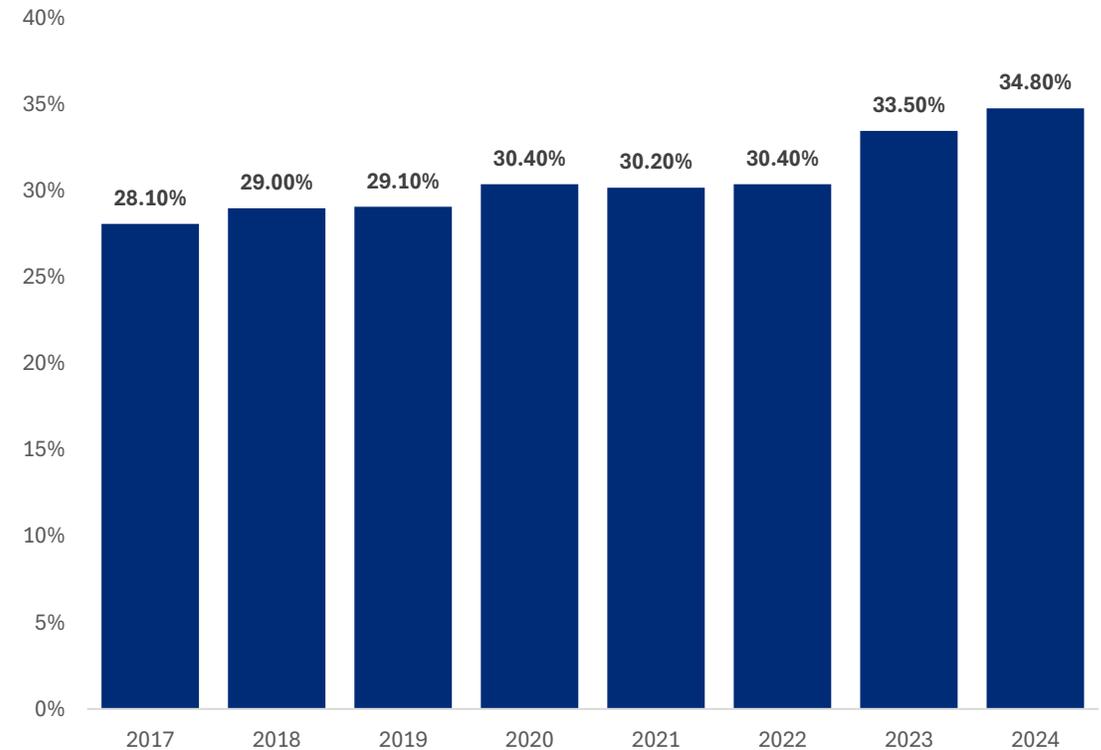
<https://www.timeshighereducation.com/world-university-rankings/latest/world-ranking>

# Educational Attainment

## Łódzkie

The percentage of people aged in productive years with higher education has gradually increased from 28.1% in 2017 to an estimated 34.8% in 2024. This growth reflects ongoing advancements in access to and attainment of higher education within the region. Notably, there were small but consistent year-on-year increments, with a significant rise from 30.4% in 2022 to 33.5% in 2023, continuing to near 35% in 2024. This suggests a positive trend toward a more educated workforce in Łódzkie, enhancing its potential for economic development and innovation.

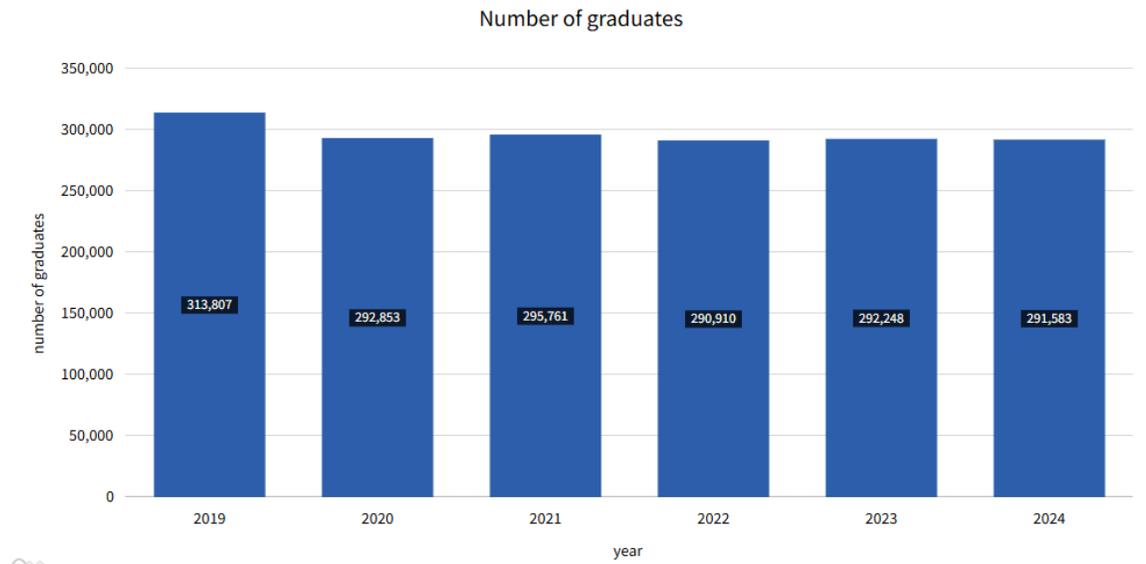
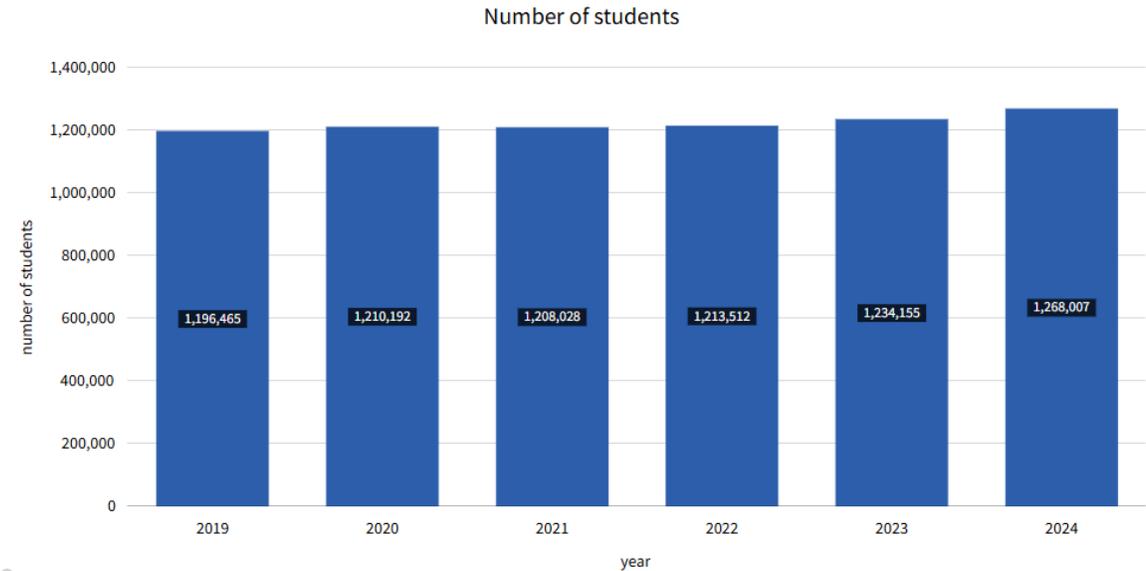
Share of working-age population with tertiary educational attainment in łódzkie voivodeship (NUTS-2), EUROSTAT 2025



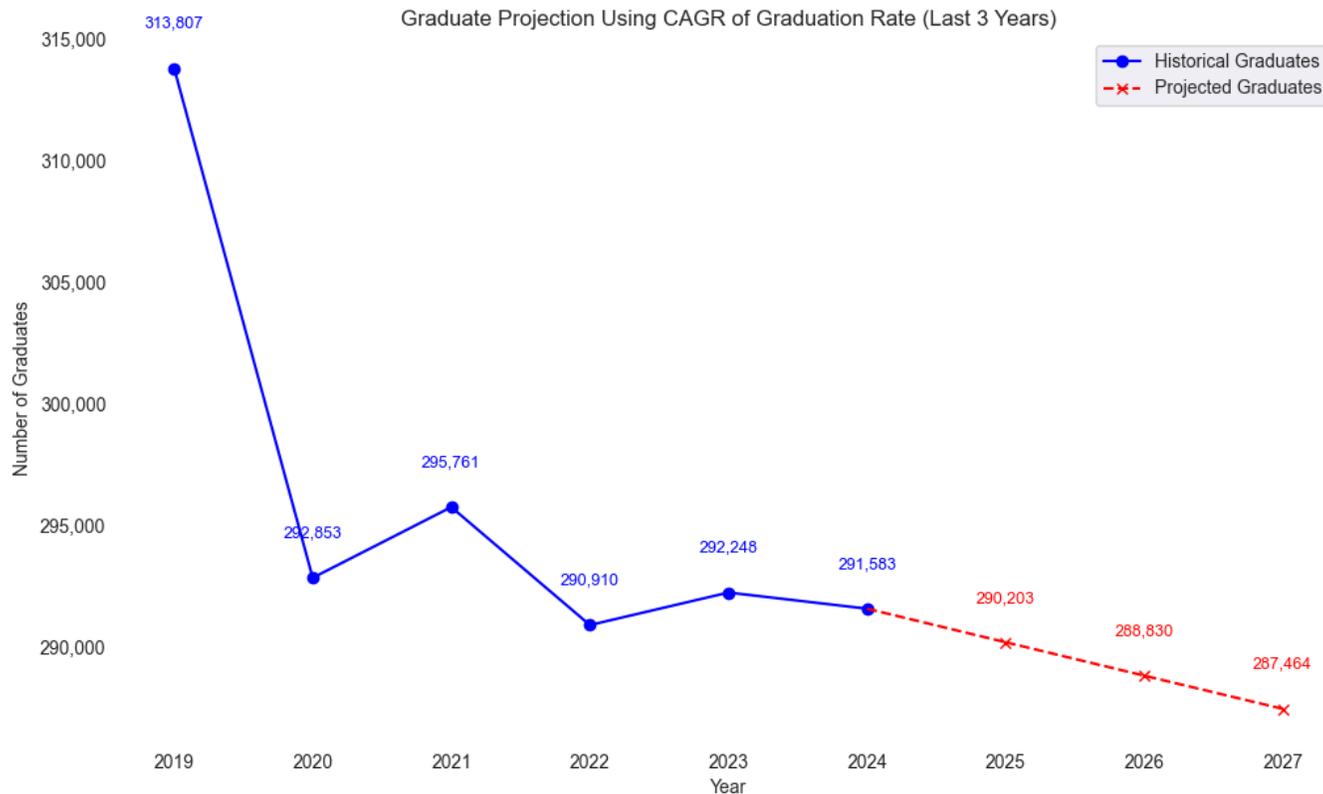
# Higher Education Enrollment trend in Łódź

The data indicates a clear divergence between higher education enrollment and graduation trends in Łódź. While the total number of enrolled students has been steadily increasing from approximately 1,196,000 in 2019 to over 1,268,000 in 2024, the number of graduates has shown a slight but consistent decline, dropping from over 313,800 in 2019 to around 291,500 in 2024.

This gap suggests potential challenges such as extended time to degree completion, increased dropout rates, or other factors impacting graduation outcomes despite growing interest and access to higher education.



# Graduate Number Estimates



## Explanatory Note

The model employs a cohort-component demographic approach to forecast the number of graduates in the Łódź metropolitan area over a short-term horizon.

It begins with detailed population data from the 2024 age distribution pyramid, subdividing the population into 5-year age groups. By aging these cohorts forward year by year, the model estimates the size of the key graduating population aged 15-24 for subsequent years. Using historical graduation data, it calculates the graduation rate defined as the ratio of actual graduates to the population within the graduating age group.

Assuming the graduation rate remains stable over the projection period and the population ages consistently, the model projects future graduates by applying this rate to the forecasted population in the 15-24 cohort.

# Number of Graduates split by relevant sector

 Sector	 Graduates	 Students
BIOTECH	943	4095
Business Services	5392	18438
IT	2456	12546
Advanced Manufacturing	1034	4986
<b>Total</b>	<b>9825</b>	<b>40065</b>



# Courses split by the most relevant sector



## BIOTECH

- Advanced biobased and bioinspired materials
- Analistyka chemiczna
- Analistyka medyczna
- Biomedical engineering and technologies
- Biotechnologia
- Chemia
- Chemia kosmetyków i farmaceutyków z elementami biznesu
- Chemia materiałów i nanotechnologia
- Fizyka
- Fizyka techniczna
- Industrial biotechnology
- Inżynieria biomedyczna
- Inżynieria chemiczna i biochemiczna
- Inżynieria chemiczna i procesowa
- Mikrobiologia



## BPO

- Administracja
- Aktuariat i analiza finansowa
- Analistyka biznesu
- Analiza danych
- Automatyzacja procesów biznesowych bpa
- Bankowość i finanse cyfrowe
- Biegły rewident i audyt finansowy
- Biznes i przedsiębiorczość
- Business and digital analytics
- Business and technology
- Business management
- Business studies
- Business, society and technology
- Ekonomia
- Ekotechnologie i bioproceny
- Matematyka
- Matematyka stosowana
- Mathematical methods in data analysis
- Zarządzanie
- Zarządzanie w administracji publicznej
- Zarządzanie zasobami ludzkimi



## PRODUKCJA

- Automatyka i robotyka
- Automatyka i sterowanie robotów
- Elektrotechnika
- Inżynieria materiałowa
- Inżynieria procesów przemysłowych
- Inżynieria produkcji
- Inżynieria zarządzania
- Materiały i technologie
- Materiały i technologie przyszłości
- Mechanical engineering
- Mechanika i budowa maszyn
- Mechatronika
- Zarządzanie i inżynieria produkcji
- Zarządzanie produkcją



## IT

- Computer science
- Computer science and information technology
- Cyfryzacja i zarządzanie danymi w biznesie
- Ekonometria i analityka danych
- Electronic and telecommunication engineering
- Elektronika i telekomunikacja
- Information technology
- Informatologia z biznesowym językiem angielskim
- Informatyka
- Informatyka ekonomiczna
- Informatyka i ekonometria
- Informatyka stosowana
- Informatyka w ochronie środowiska
- Modelling and data science
- Sztuczna inteligencja i uczenie maszynowe

# Graduates - BIOTECH

## Number of graduates split by school and course - BIOTECH

Course	Institution	Annual no. Of Graduates	Total Students
Advanced biobased and bioinspired materials	POLITECHNIKA ŁÓDZKA	6	88
Analityka chemiczna	POLITECHNIKA ŁÓDZKA	38	196
	UNIWERSYTET ŁÓDZKI	80	192
Analityka medyczna	UNIWERSYTET MEDYCZNY W ŁODZI	54	516
Biomedical engineering and technologies	POLITECHNIKA ŁÓDZKA	0	156
Biotechnologia	POLITECHNIKA ŁÓDZKA	164	490
	UNIWERSYTET ŁÓDZKI	104	374
	UNIWERSYTET MEDYCZNY W ŁODZI	168	578
Chemia	POLITECHNIKA ŁÓDZKA	48	178
	UNIWERSYTET ŁÓDZKI	28	98
Chemia kosmetyków i farmaceutyków z elementami biznesu	UNIWERSYTET ŁÓDZKI	54	270
Chemia materiałów i nanotechnologia	UNIWERSYTET ŁÓDZKI	14	52
Fizyka	UNIWERSYTET ŁÓDZKI	3	82
Fizyka techniczna	POLITECHNIKA ŁÓDZKA	12	59
Industrial biotechnology	POLITECHNIKA ŁÓDZKA	20	166
Inżynieria biomedyczna	POLITECHNIKA ŁÓDZKA	50	284
Inżynieria chemiczna i biochemiczna	POLITECHNIKA ŁÓDZKA	18	24
Mikrobiologia	UNIWERSYTET ŁÓDZKI	82	292

# Graduates – Business Services

## Number of graduates split by school and course – Business Services

Course	Institution	Annual no. Of Graduates	Total Students
Administracja	AKADEMIA HUMANISTYCZNO-EKONOMICZNA W ŁODZI	138	456
	SPOŁECZNA AKADEMIA NAUK W ŁODZI	94	638
	UNIwersytet Łódzki	426	1626
Aktuariat i analiza finansowa	POLITECHNIKA ŁÓDZKA	0	262
Analityka biznesu	UNIwersytet Łódzki	108	468
Analiza danych	UNIwersytet Łódzki	118	748
Automatyzacja procesów biznesowych bpa	UNIwersytet Łódzki	54	268
Bankowość i finanse cyfrowe	UNIwersytet Łódzki	160	628
Biegły rewident i audyt finansowy	UNIwersytet Łódzki	0	286
Biznes i przedsiębiorczość	UCZELNIA ASBIRO W ŁODZI	0	142
Business and digital analytics	UNIwersytet Łódzki	0	76
Business and technology	POLITECHNIKA ŁÓDZKA	28	102
Business management	UNIwersytet Łódzki	48	274
Business studies	POLITECHNIKA ŁÓDZKA	48	164
Business, society and technology	POLITECHNIKA ŁÓDZKA	0	168
Ekonomia	AKADEMIA HUMANISTYCZNO-EKONOMICZNA W ŁODZI	30	142
	UNIwersytet Łódzki	274	1414
	WYŻSZA SZKOŁA FINANSÓW I INFORMATYKI IM. PROF. J. CHECHLIŃSKIEGO W ŁODZI	176	662
Ekotechnologie i bioproceny	POLITECHNIKA ŁÓDZKA	0	12
Matematyka	UNIwersytet Łódzki	62	334
Matematyka stosowana	POLITECHNIKA ŁÓDZKA	98	362
Mathematical methods in data analysis	POLITECHNIKA ŁÓDZKA	0	144
Zarządzanie	AKADEMIA HUMANISTYCZNO-EKONOMICZNA W ŁODZI	206	714
	POLITECHNIKA ŁÓDZKA	128	656
	SPOŁECZNA AKADEMIA NAUK W ŁODZI	2260	5154
	UCZELNIA ASBIRO W ŁODZI	196	294
	UNIwersytet Łódzki	584	1760
Zarządzanie w administracji publicznej	UNIwersytet Łódzki	28	16
Zarządzanie zasobami ludzkimi	UNIwersytet Łódzki	128	468

# Graduates – Information Technology

## Number of graduates split by school and course

Course	Institution	Annual no. Of Graduates	Total Students
Computer science	POLITECHNIKA ŁÓDZKA	30	304
Computer science and information technology	POLITECHNIKA ŁÓDZKA	6	96
Cyfryzacja i zarządzanie danymi w biznesie	UNIWERSYTET ŁÓDZKI	48	180
Ekonometria i analityka danych	UNIWERSYTET ŁÓDZKI	92	416
Electronic and telecommunication engineering	POLITECHNIKA ŁÓDZKA	0	176
Elektronika i telekomunikacja	POLITECHNIKA ŁÓDZKA	116	440
Informatologia z biznesowym językiem angielskim	UNIWERSYTET ŁÓDZKI	32	62
Informatyka	AKADEMIA HUMANISTYCZNO-EKONOMICZNA W ŁODZI	316	1590
	POLITECHNIKA ŁÓDZKA	328	1676
	SPOŁECZNA AKADEMIA NAUK W ŁODZI	226	1620
	UNIWERSYTET ŁÓDZKI	688	3136
Informatyka ekonomiczna	UNIWERSYTET ŁÓDZKI	86	544
Informatyka i ekonometria	UNIWERSYTET ŁÓDZKI	6	0
Informatyka stosowana	POLITECHNIKA ŁÓDZKA	386	1794
Informatyka w ochronie środowiska	POLITECHNIKA ŁÓDZKA	58	190
Modelling and data science	POLITECHNIKA ŁÓDZKA	14	204
Sztuczna inteligencja i uczenie maszynowe	POLITECHNIKA ŁÓDZKA	24	118

# Graduates – Advanced Manufacturing

## Number of graduates split by school and course

Course	Institution	Annual no. Of Graduates	Total Students
Automatyka i robotyka	POLITECHNIKA ŁÓDZKA	88	494
Automatyka i sterowanie robotów	POLITECHNIKA ŁÓDZKA	150	826
Elektrotechnika	POLITECHNIKA ŁÓDZKA	164	852
Inżynieria materiałowa	POLITECHNIKA ŁÓDZKA	10	46
Inżynieria procesów przemysłowych	POLITECHNIKA ŁÓDZKA	0	54
Inżynieria produkcji	POLITECHNIKA ŁÓDZKA	36	6
Inżynieria zarządzania	POLITECHNIKA ŁÓDZKA	96	80
Materiały i technologie	POLITECHNIKA ŁÓDZKA	0	14
Materiały i technologie przyszłości	POLITECHNIKA ŁÓDZKA	0	36
Mechanical engineering	POLITECHNIKA ŁÓDZKA	20	190
Mechanika i budowa maszyn	AKADEMIA HUMANISTYCZNO-EKONOMICZNA W ŁODZI	24	136
	POLITECHNIKA ŁÓDZKA	64	746
Mechatronika	POLITECHNIKA ŁÓDZKA	74	440
Zarządzanie i inżynieria produkcji	POLITECHNIKA ŁÓDZKA	308	708
Zarządzanie produkcją	POLITECHNIKA ŁÓDZKA	0	358

# Graduate Migration

## How many graduates stay in Łódź Metropolitan Area after graduation

Tenure	Łódź Metro	Non-Łódź Metro	Warsaw	Cracow	Wroclaw	Gdansk	Poznan	London	Katowice
Total	51.27%	48.73%	13.62%	1.45%	1.44%	1.22%	0.97%	0.76%	0.75%
0-2	56.63%	43.37%	8.97%	1.18%	1.01%	0.73%	0.91%	0.25%	0.76%

The above table has been built using data from social media profiles of individuals who have graduated from universities located in the metropolitan area of Łódź.

The first row of data (Total) shows the % of all of the graduates of the mentioned universities identified on LinkedIn and where they are currently working from. The 0-2 row shows the distribution in the sub-group of profiles with 2 and fewer years of professional experience.

The data suggests that while the majority of graduates stay in the city they have studied in, a large volume of the graduates flock to other metropolitan areas in Poland and abroad.

# English Language

## Competencies - English language



The English Proficiency Index report compares the level of English in countries around the world. It is an index based on the results of tests conducted among students who have undertaken English language learning. The results are published annually and presented on a scale from 0 to 700 points.

Poland in the global EPI ranking, with a score of 600 points, ranks 15th in the world and 13th in Europe and closes the group of countries whose English language skills are described as very high.

Łódź, in the ranking of cities in Poland, is in the middle of the pack with an average score of 601 points.

### EPI 2025 Results, Europe



### ✓ Scores for

Gdańsk	625
Lublin	617
Katowice	616
Poznan	608
Krakow	605
Łódź	601
Wroclaw	599
Białystok	594
Warsaw	591
Szczecin	589
Bydgoszcz	584

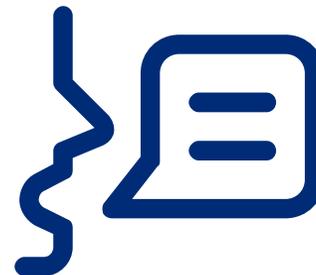
Źródło: <https://www.ef.pl/epi/regions/europe/poland/>

# Prevalence of foreign languages among white-collars

## White collars



The table presents the estimated percentage of office workers in the Łódź Metropolitan Area who speak selected foreign languages. English is the most common language, spoken by 82.7% of employees, highlighting its crucial role in business communication. German comes second with 7.7%, while French and Spanish are spoken by similar percentages, at 4.7% and 4.5%, respectively. Italian-speaking employees have the lowest percentage, at 1.8%. These results indicate the overwhelming dominance of English in the professional environment, while other European languages maintain a moderate presence.



Estimated percentage of office workers who speak a given language, Łódź Metropolitan Area

English	82.7%
German	7.7%
French	4.7%
Spanish	4.5%
Italian	1.8%

Source: Opracowanie własne na podstawie danych Eurobarometer, 2025, EUROSTAT, 2025 oraz danych z LinkedIn

**Salaries**

**4**



# Section Summary

## Salaries in Łódź

- Salary levels in Łódź, both generally and for key jobs within the analyzed sectors, remain lower than in other cities that typically compete with Łódź for investment.
- With the above in mind, Łódź demonstrates higher competitiveness on this criterion compared to other major Polish cities.
- We would like to underline that the jobs in scope which are typically demanded by investors investing remain relatively highly paid in comparison to average level of salaries on the market.
- The growth rate, being high in the recent years is expected to stabilize, also in case of the key jobs for the sectors in scope of this report.
- It is worth mentioning that from the investors point of view the most important are total employment costs including all the compensation elements, benefits and social security charges.

# Salaries

## Mercer's Data



The Łódź voivodeship is characterized by average salaries that are below the level of the largest metropolitan voivodeships, such as Mazowieckie or Dolnośląskie, but in general, local salaries are higher than in some eastern and north-eastern voivodeships of Poland.

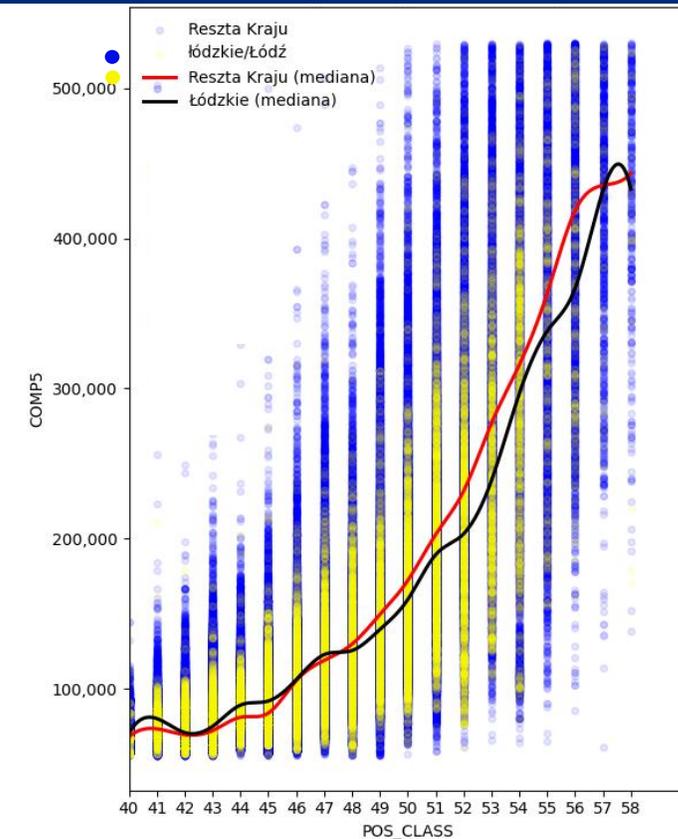
In the central region of the voivodeship, including Łódź and its immediate surroundings, we observe local concentrations of higher wages, which corresponds to typical urbanization trends and the concentration of industry and services.

The chart on the right was built on the basis of salary data collected by Mercer and uses the methodology of classifying employees according to Position Class, which determines the employee's hierarchy in the organization (the higher the POS\_CLASS value, the higher the employee is in the hierarchy).

The results suggest that salaries in the Łódź voivodeship are higher than the national median for lower-level positions (variable POS\_CLASS) and lower than the national median for classes higher than 47.

It is worth noting that records above class 56 for the Łódź voivodeship disappear in the sample.

Total remuneration\* by position class in Łódź vs the rest of Poland



# Salaries in general, Łódź voivodeship

Data from the Central Statistical Office



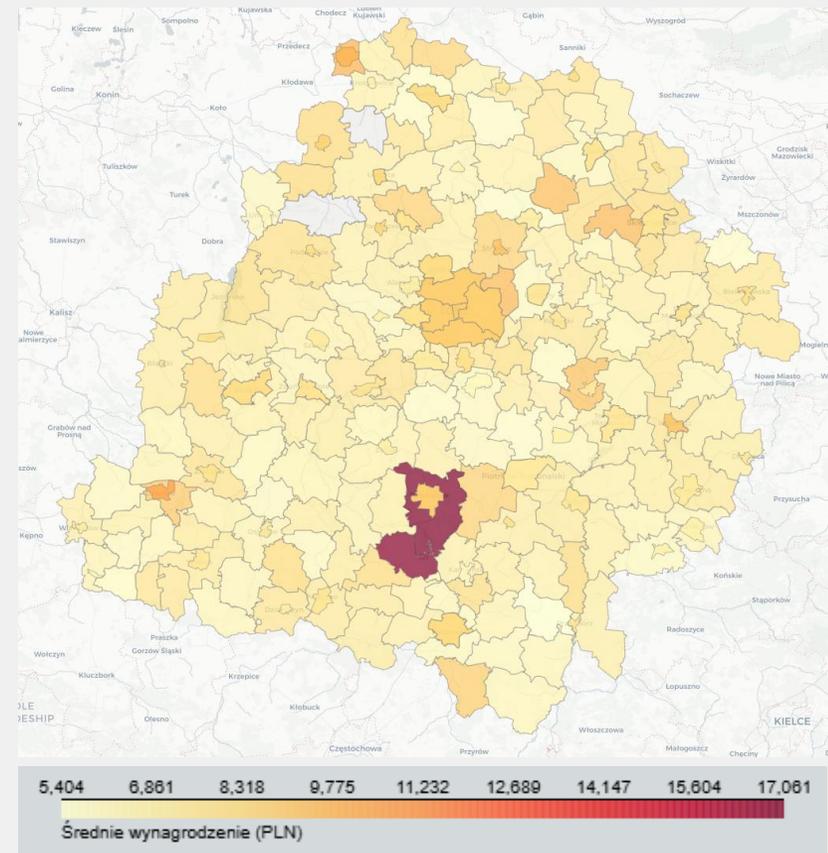
The map presents the spatial distribution of average gross monthly salaries in individual municipalities, using standardized, 7-digit municipality codes to link salary data with administrative boundaries.

The color scale, ranging from approximately PLN 5,400 (light yellow) in the Jasłowice municipality to over PLN 17,000 (dark burgundy) in the Sulmierzyce and Bełchatów municipalities.

A clearly distinct area stands out in the south-central part of the map, where average earnings exceed PLN 17,000, which contrasts with the surrounding municipalities, where salaries mainly fluctuate around PLN 6,000-7,000.

In Łódź itself, the average salary is approximately PLN 8,800. Among the municipalities surrounding this city, average salaries are lower, with the exception of Nowosolna (PLN 9,539).

## Average remuneration by location of workplace



Source: GUS, WYNAGRODZENIA I ŚWIADCZENIA SPOŁECZNE, BDL, 2025

# Salaries

## Mercer Methodology – Positions and Hierarchy



The Mercer Job Library methodology offers a comprehensive and standardized approach to collecting and analyzing job data, covering over 25,000 positions in 32 job families and 230 subfamilies worldwide. This methodology classifies positions based on "nature of work" and hierarchy within the organization, providing detailed and consistent job descriptions and a coding structure. Thanks to a universal catalog and coding system, Mercer facilitates accurate comparisons and benchmarking of salary data across different industries, regions, and career levels.

A key advantage of the Mercer Job Library is its consistency and scalability, enabled by advanced data consolidation features that allow for combining related specializations and roles, increasing the reliability of salary comparisons, even when local data is limited.

The data collected in this report was collected based on MJL and was grouped by job groups, position in the employee hierarchy, and by salary components (base, annual bonuses, benefits, social benefits).

Position Category	Code / Level in Hierarchy	Requirements / Characteristics
Managers	Senior Manager (M40)	A Senior Manager (M40) typically manages a department or small unit that includes multiple teams led by Managers and/or Team Leaders. Typical duties include: Responsibility for implementing the functional strategy and operational management of the department in the short and medium term (1-3 years). Problems encountered are often complex and require thorough investigation and analysis. Requires the ability to influence others to accept adopted approaches and practices, and the ability to communicate and influence executive management.
	Manager (M30)	The Manager manages experienced specialists who perform tasks with a high degree of independence. Typical duties include:  Implementation of policies and strategies for short-term results (year or less). Problems encountered are difficult to moderately complex. Influences people outside of their own work area in terms of policies, practices and procedures.
	Team Leader (M20)	The Team Leader supervises professional employees (usually at the entry or experienced level) and may also supervise some para-professional employees. Typical duties include:  Setting goals and objectives for team members to achieve operational results. Problems encountered can be difficult but are usually not complex. Ensuring that policies, practices and procedures are understood and followed by direct reports, customers and stakeholders.
Specialists	Senior Specialist (P30)	Project/process management, independent work with limited supervision. Training and reviewing the work of lower-ranking specialists. Problems encountered are difficult and sometimes complicated.
	Experienced Specialist (P20)	Independent work with general supervision. Problems encountered are difficult, but usually not complicated. May influence others in the field by explaining facts, policies and practices.
	Junior Specialist (P10)	Working under close supervision. Problems encountered are usually not difficult or complicated.

# Sample job categorization

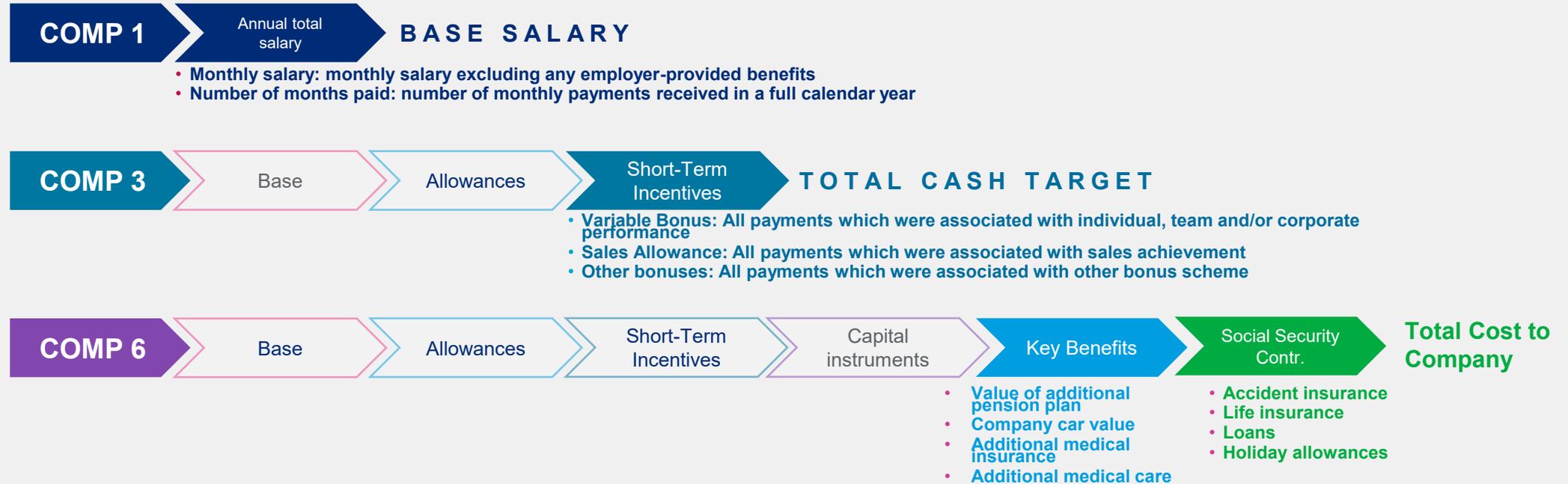
Position	<b>SMP.04.065.P20</b> <b>Social Media Marketing - Experienced Specialist (P2)</b>
	<p>Social media marketing focuses on building a brand presence on social media platforms to increase product/brand awareness, generate traffic to the product/brand's social media pages, and encourage potential customers to join the product/brand's social networks, including:</p> <ul style="list-style-type: none"><li>Conducting market research to identify the most important social networking sites and promotional tactics of interest to the target group</li><li>Developing and implementing social media promotions, contests, informational and entertainment content, etc., that encourage potential customers to join the product/brand's social networks and share content with others</li><li>Creating and updating social media page content (e.g., blogs, e-books, games, movies, product reviews, training materials, technical white papers, webinars, etc.)</li><li>Monitoring the product/brand's social networks, answering questions, and gathering feedback on current and potential future products</li></ul>
	<p>Independent work with general supervision. Problems encountered are difficult, but usually not complicated. May influence others in the field by explaining facts, policies and practices.</p>
Type of work performed	
Hierarchy	

What tasks does this person perform?

At what level in the organization is this person and what are their responsibilities?

# Salaries

## Salary components

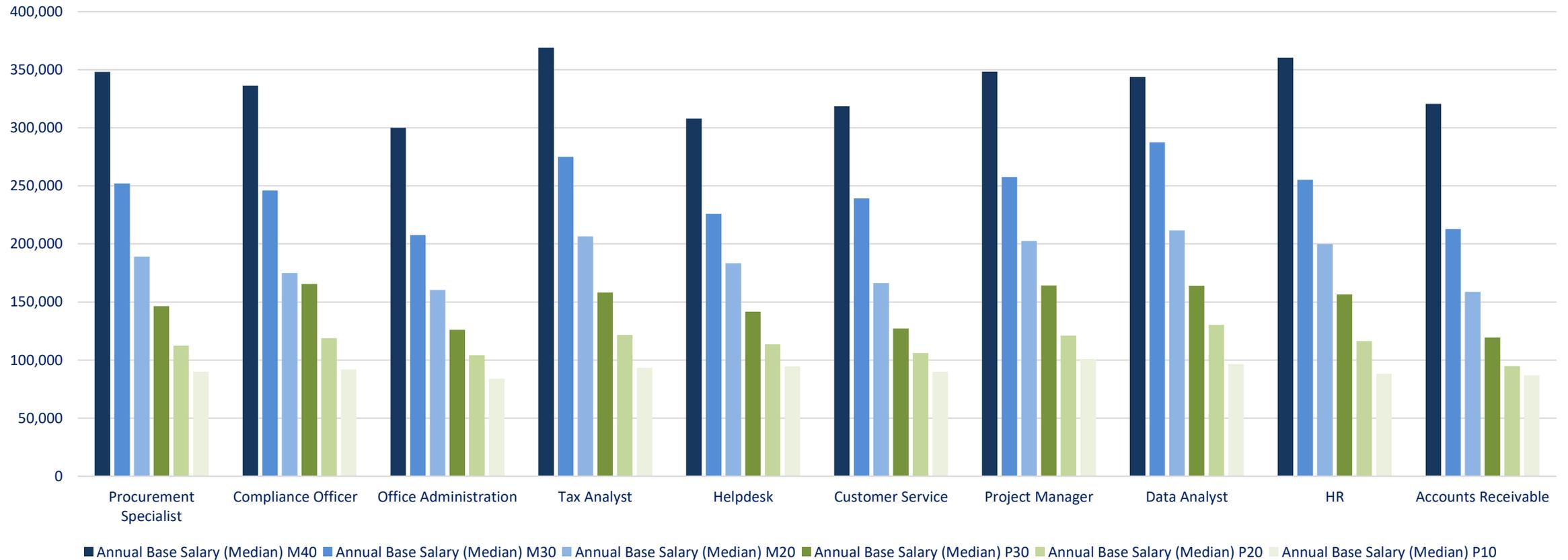


The following slides present median salaries in the Łódź market, broken down by sectors and job groups. The data is also divided by so-called salary components. The components of these components are shown in the diagram above.

# Salaries in the BPO sector (1/3)

## Base Salary

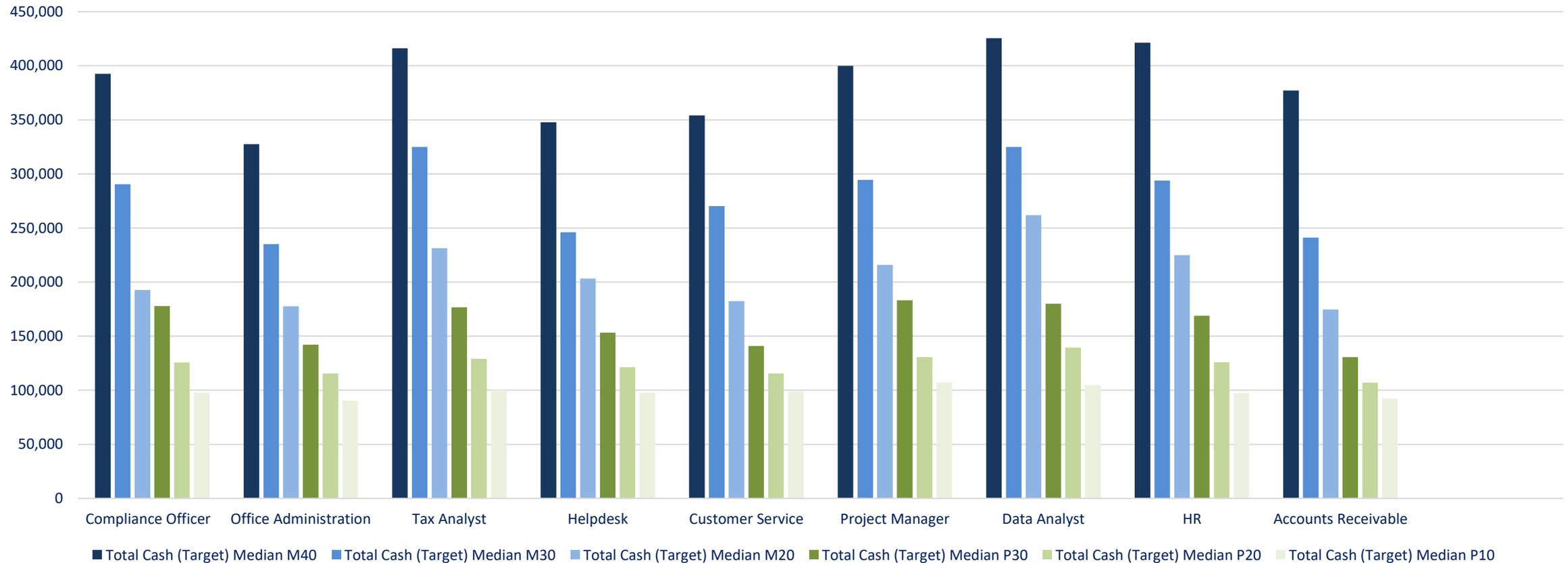
Business Process Outsourcing - Annual Base Salary



# Salaries in the BPO sector (2/3)

## Total Cash (Target)

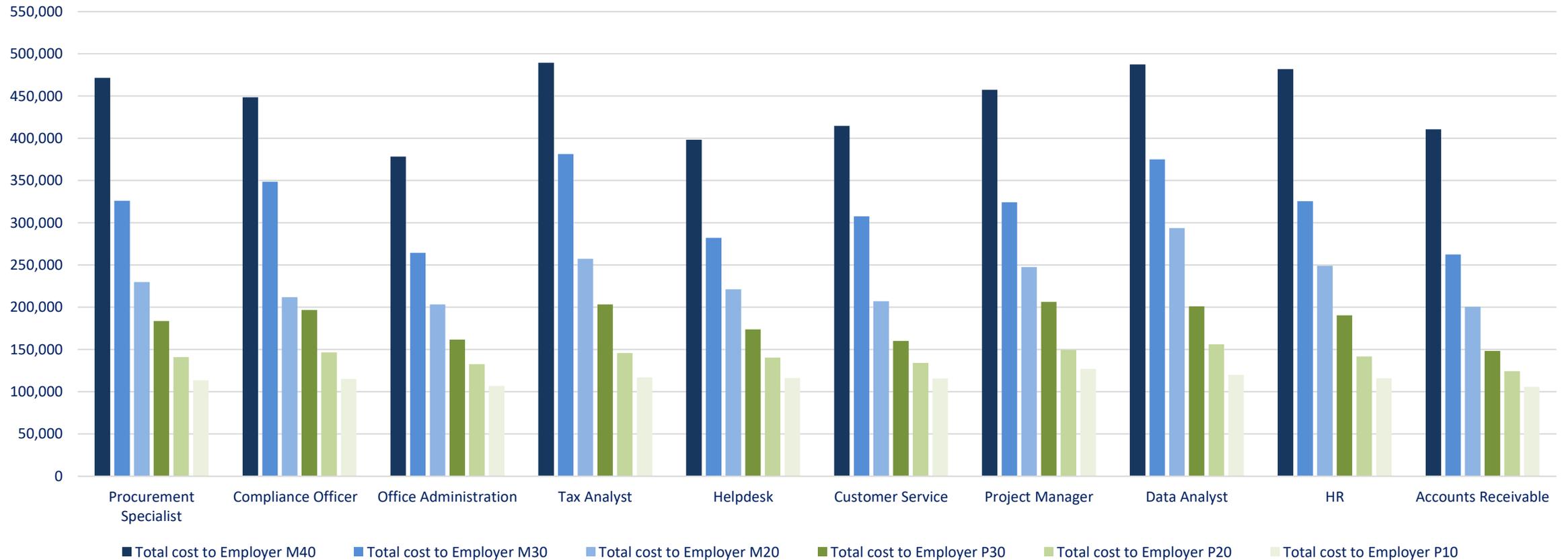
Business Process Outsourcing - Total Cash (Target)



# Salaries in the BPO sector (3/3)

## Total Cost to Employer

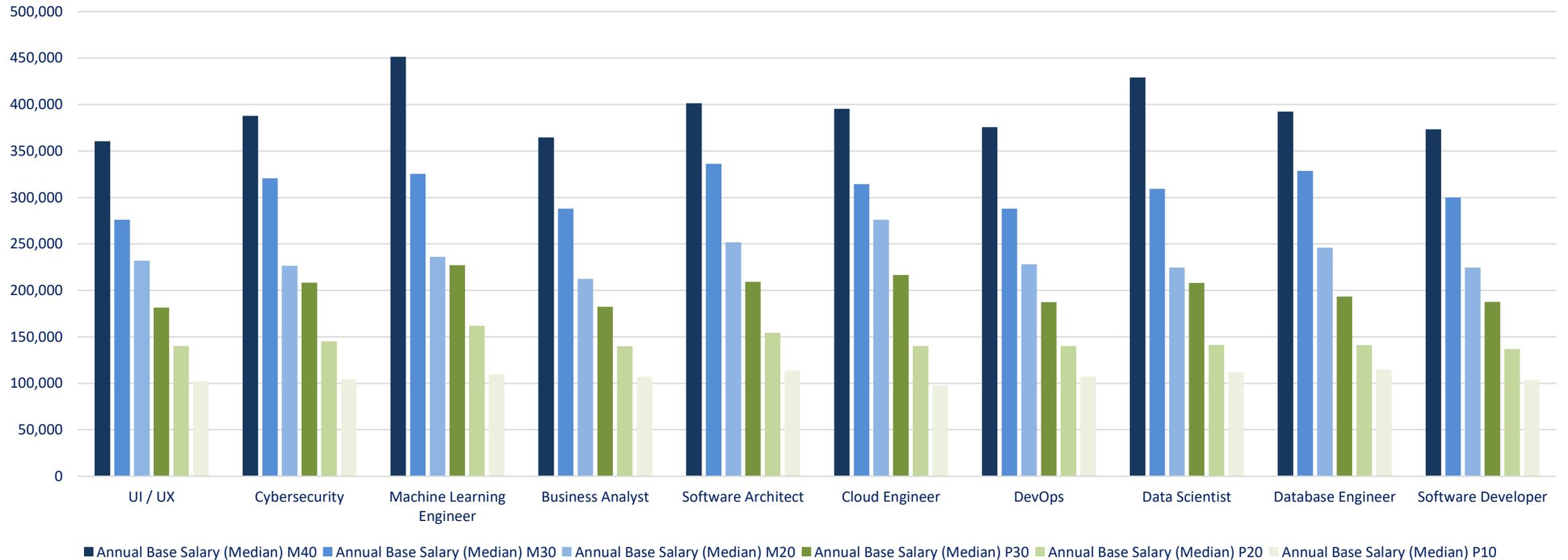
Business Process Outsourcing - Total Cost to Employer



# Salaries in the High Tech sector (1/3)

## Base Salary

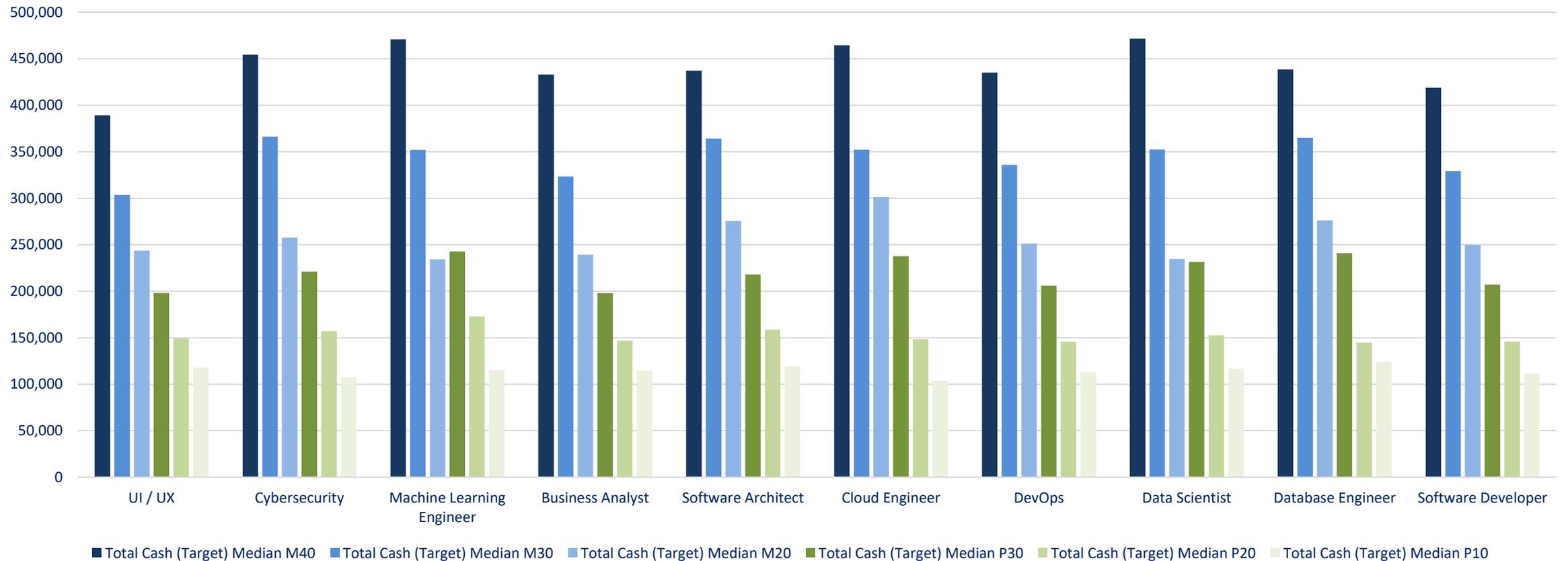
High-Tech - Annual Base Salary



# Salaries in the High Tech sector (2/3)

## Total Cash (Target)

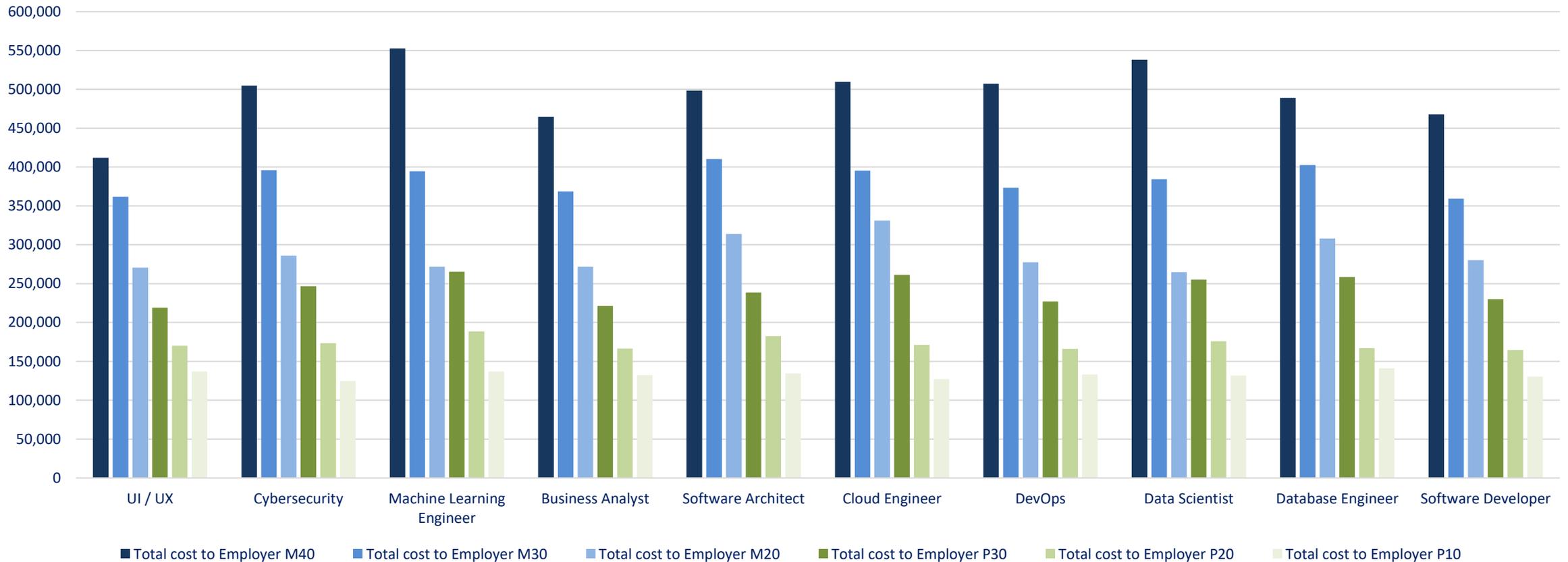
High-Tech - Total Cash (Target)



# Salaries in the High Tech sector (3/3)

## Total Cost to Employer

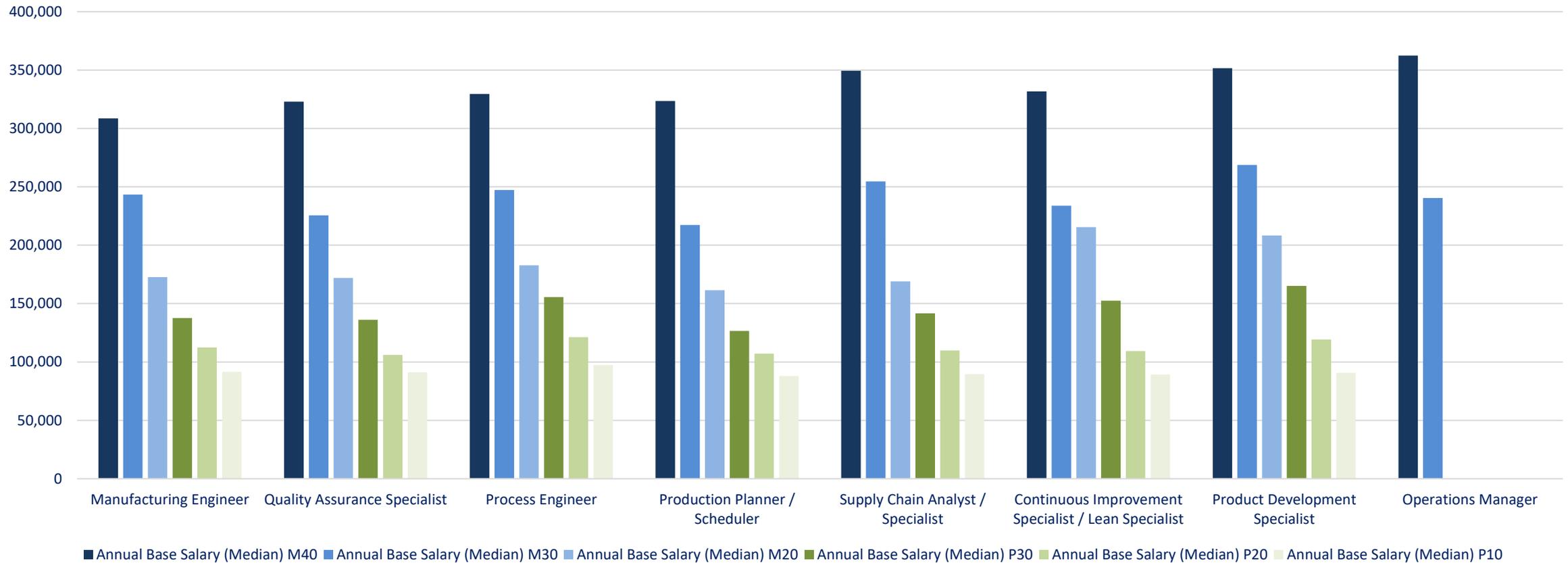
High-Tech - Total Cost to Employer



# Salaries in the manufacturing sector (1/3)

## Base Salary

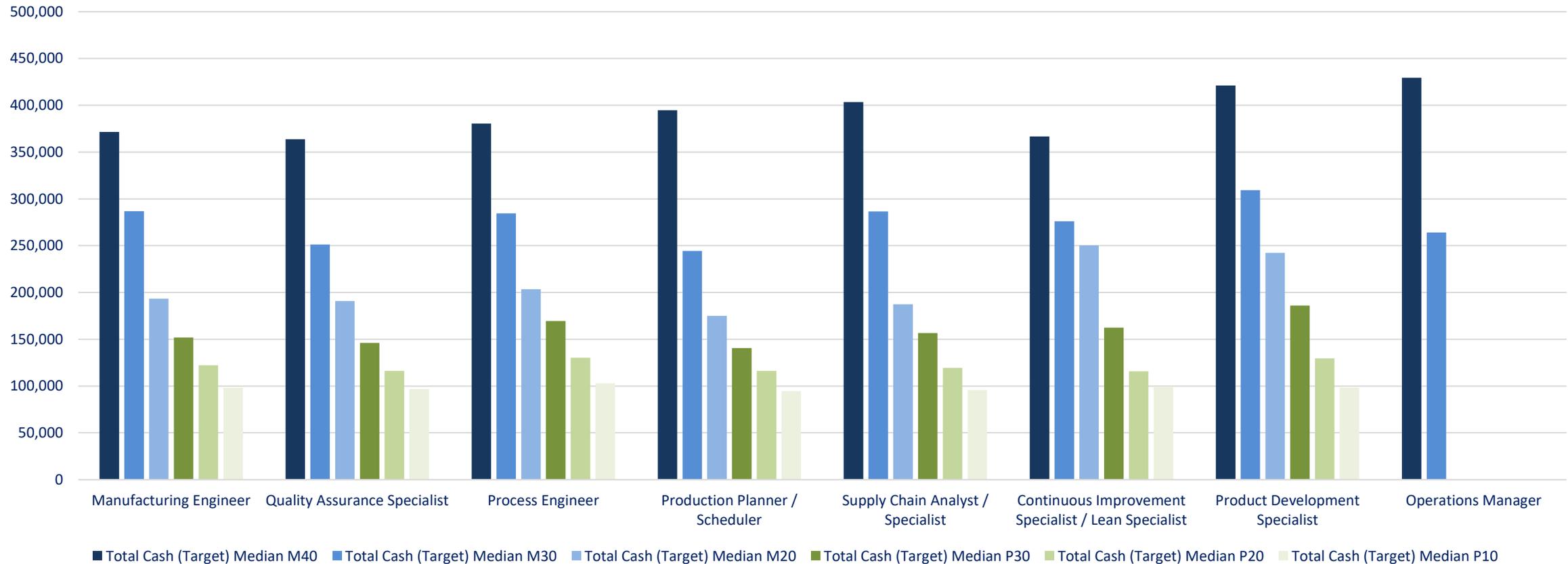
Advanced Manufacturing - Annual Base Salary



# Salaries in the manufacturing sector (2/3)

## Total Cash (Target)

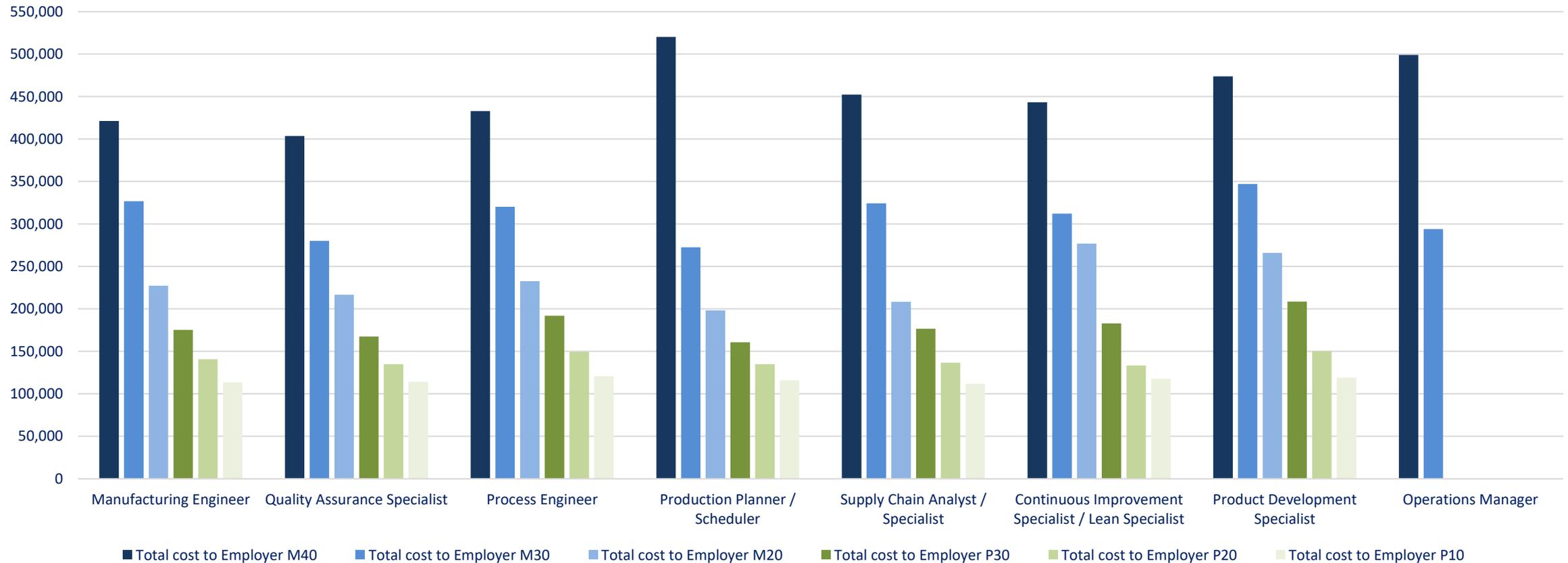
Advanced Manufacturing - Total Cash (Target)



# Salaries in the manufacturing sector (3/3)

## Total Cost to Employer

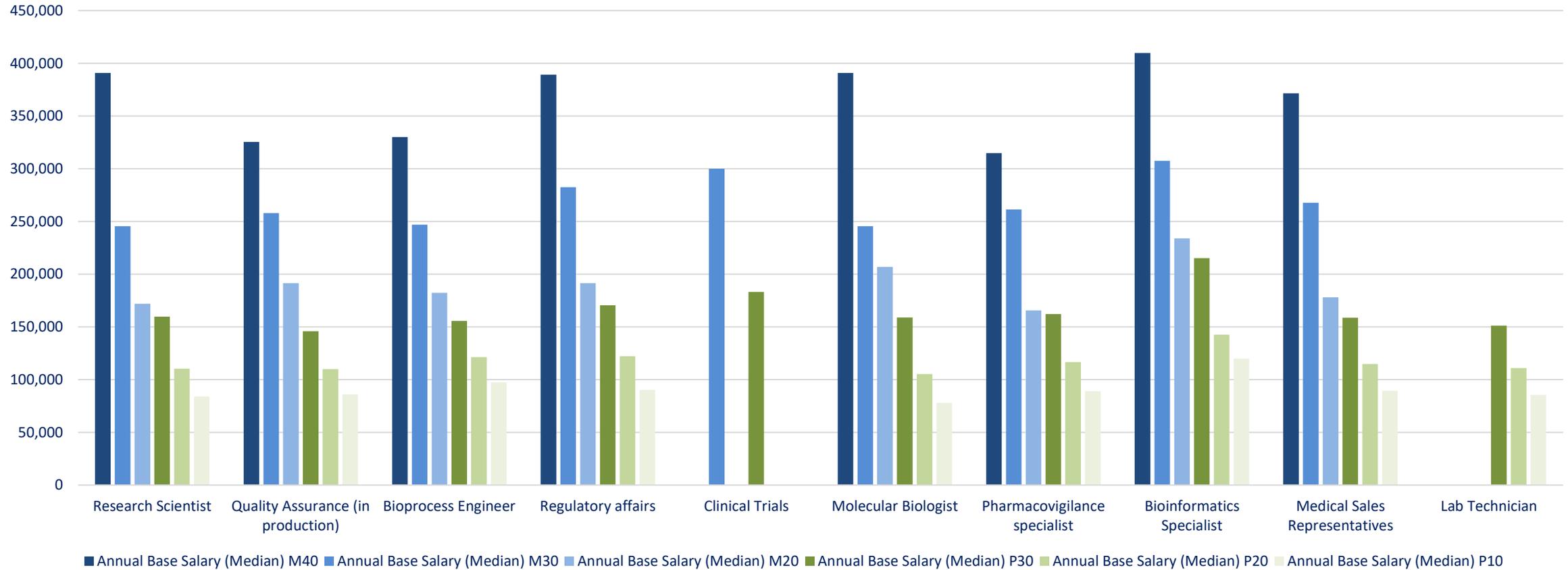
Advanced Manufacturing - Total Cost to Employer



# Salaries in the Biotech sector (1/3)

## Base Salary

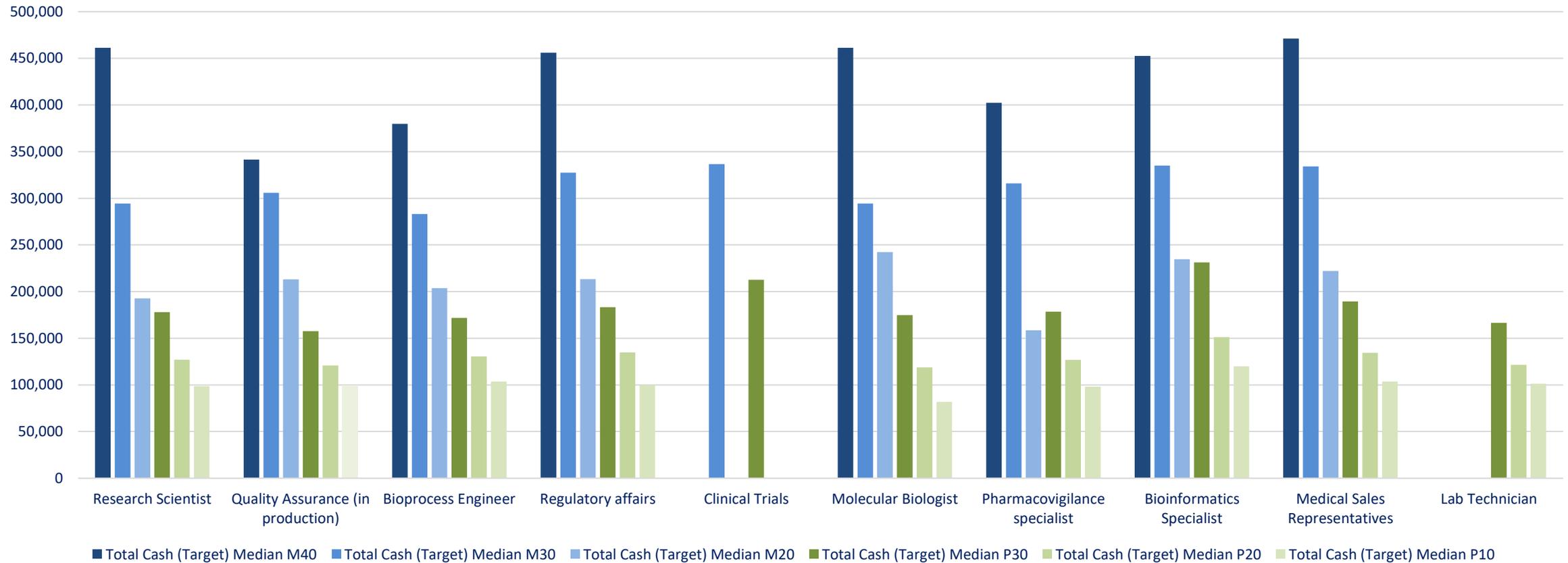
Biotech - Annual Base Salary



# Salaries in the Biotech sector (2/3)

## Total Cash (Target)

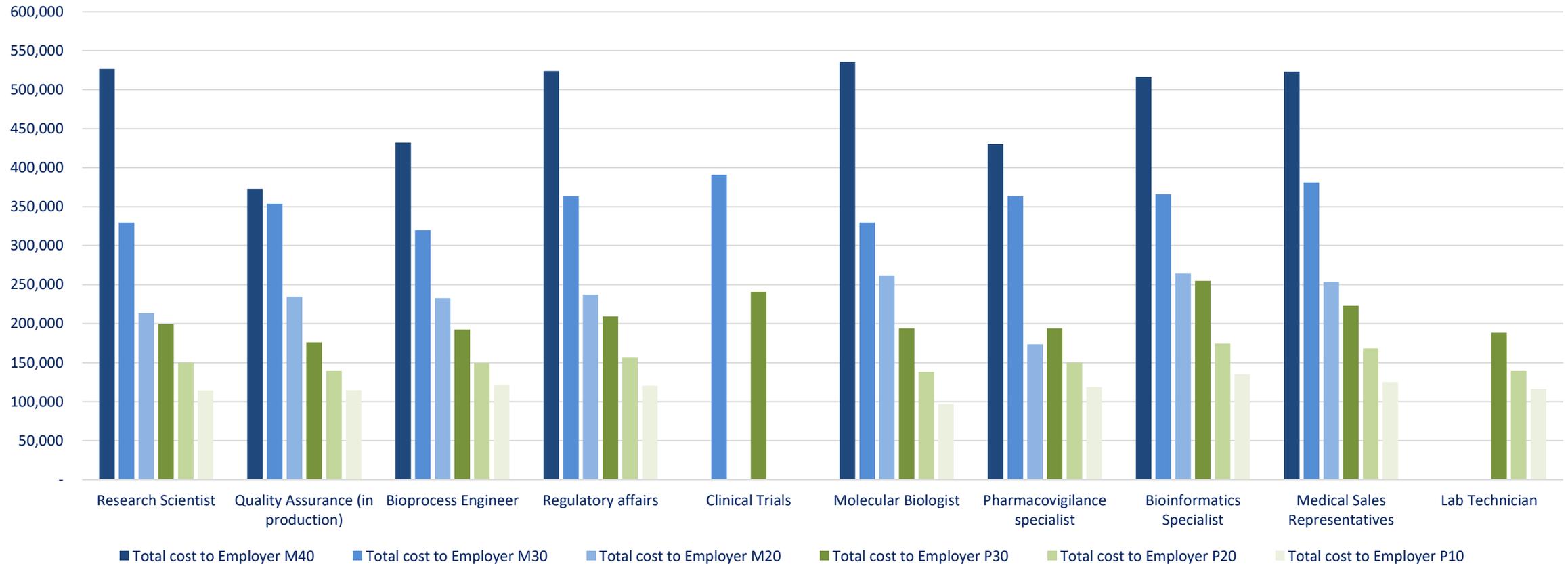
Biotech - Total Cash (Target)



# Salaries in the Biotech sector (3/3)

## Total Cash to Employer

Biotech - Total Cost to Employer



# Salary budgets in Poland

## Year-on-year change in salary budgets (%)

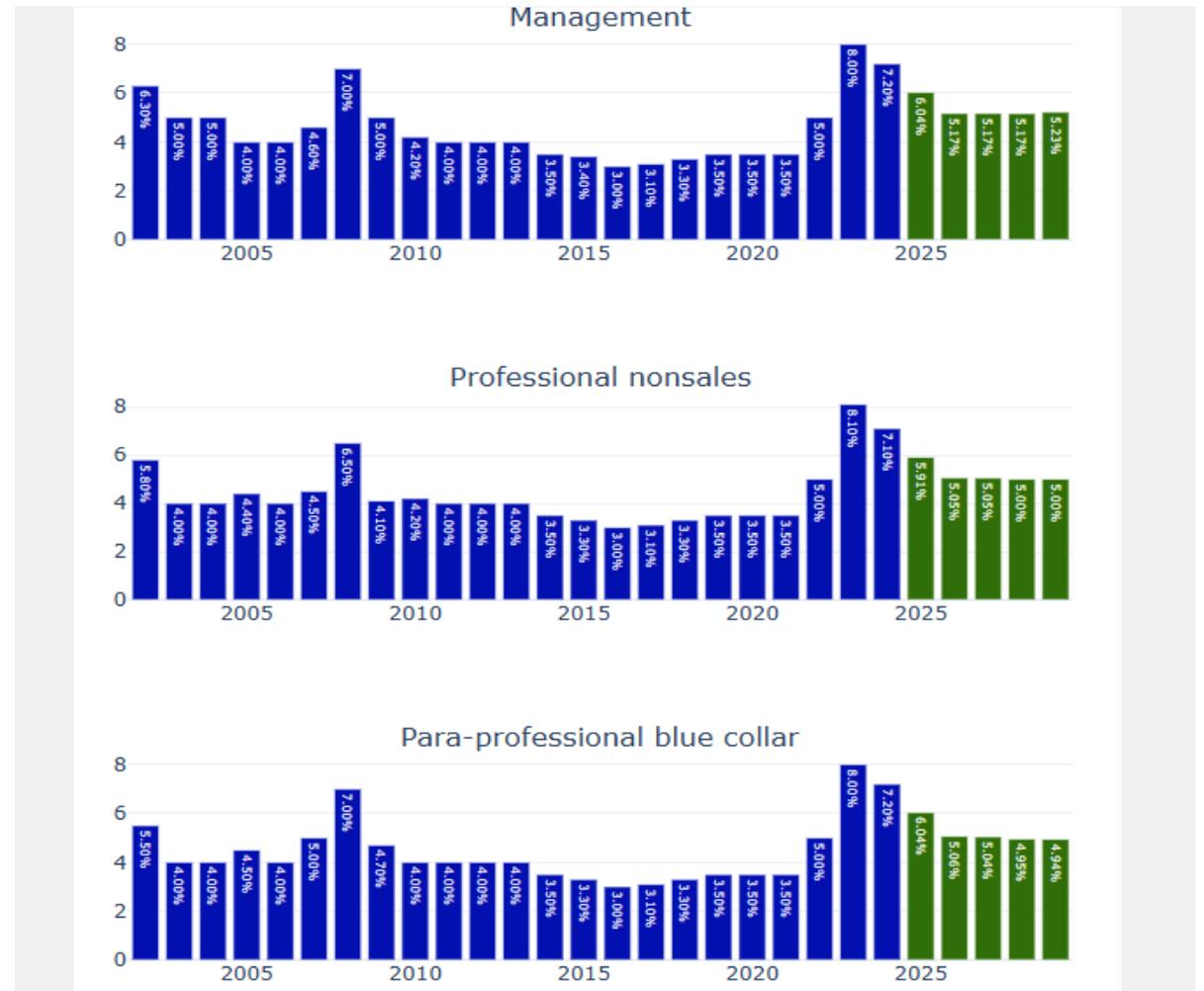


The chart presents historical data on employment growth rates in three categories: managers, non-sales specialists and manual workers

Historical data, marked in blue, is the actual reported average growth of payroll budgets divided into the listed classes of employees.

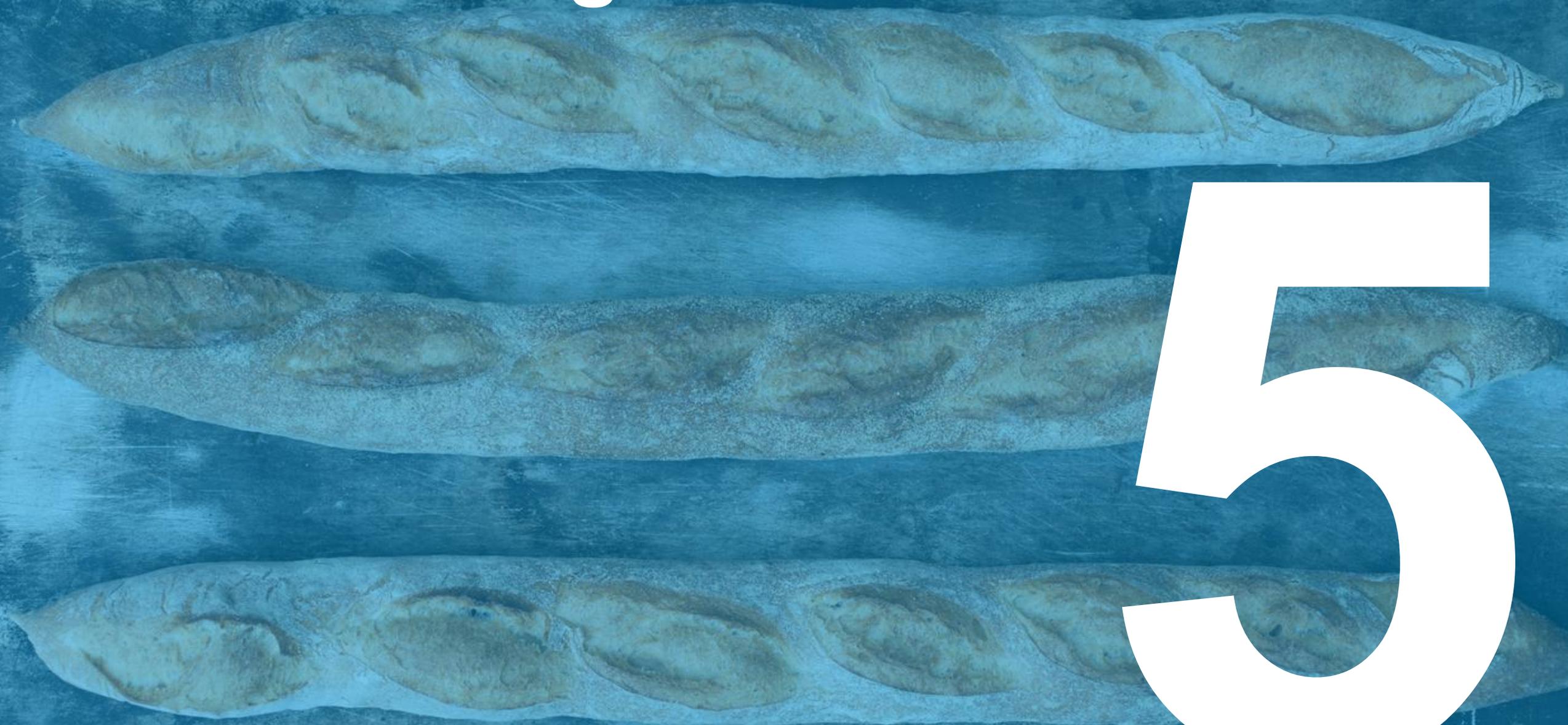
Forecast for years , while forecasts for 2025–2029 (green) are based on economic forecasts from the International Monetary Fund (IMF).

According to forecasts, after a period of acceleration, the rate of wage growth will fall to around 5% for all three classes of employees.



Source: Machine learning model, random decision forest built on historical Mercer data, and economic forecasts from the International Monetary Fund, IMF Economic Outlook, October 2024

**Cost of living**



**5**

# Section Summary

## Living wage and cost of living

- Cost of living in Łódź remains lower than in the other biggest cities in Poland.
- What is most important, from the perspective of statistical family of 2 adults with 2 children, receiving salary on the level of Minimum wage in Poland already allows for healthy and functional level of living, allowing to rent the accommodation in the cheapest area.
- For employees working in the analyzed sectors, the situation is much more favorable as the level of salaries exceeds significantly the minimum.
- Low costs of living are one of the assets of Łódź and should play major role in attracting candidates from other cities and as well impact positively inclination of local talents to stay in the city.

# Cost of living calculation

Minimum monthly cost of living in Łódź in the second half of 2025.

Country	Poland	Expenditure basket	Basic	Reserve for unexpected spending	5%	Physical Work	No	Alcohol/To bacco	No	Additional variables	No
City	Łódź										
Currency	PLN										

	One Person				Couple (1 person working)				Couple (both people working)			
	0 children *	1 child	2 children	3 children	0 children *	1 child	2 children	3 children	0 children *	1 child	2 children	3 children
	PLN	PLN	PLN	PLN	PLN	PLN	PLN	PLN	PLN	PLN	PLN	PLN
Accommodation cost	770	1,600	2,000	2,000	1,600	2,000	2,000	2,000	800	1,000	1,000	1,000
Utilities	350	610	900	900	610	900	900	900	300	450	450	450
Food and beverages	740	1,250	1,770	2,280	1,400	1,920	2,430	2,950	700	960	1,220	1,470
Transport	140	210	280	350	280	350	420	490	140	180	210	250
Telephone Subscription	30	30	30	30	60	60	60	60	30	30	30	30
Education	0	20	30	40	0	30	40	50	0	20	20	20
Other costs	540	870	1,230	1,570	1,030	1,360	1,710	2,060	510	680	860	1,030
Reserve (5%)	130	230	310	360	250	330	380	430	120	170	190	210
<b>Total net expenses</b>	<b>2,700</b>	<b>4,820</b>	<b>6,550</b>	<b>7,530</b>	<b>5,230</b>	<b>6,950</b>	<b>7,940</b>	<b>8,940</b>	<b>2,600</b>	<b>3,490</b>	<b>3,980</b>	<b>4,460</b>
Estimated tax	770	170	0	0	1,510	990	160	0	710	480	540	610
<b>Estimated gross minimum</b>	<b>3,470</b>	<b>4,990</b>	<b>6,550</b>	<b>7,530</b>	<b>6,740</b>	<b>7,940</b>	<b>8,100</b>	<b>8,940</b>	<b>3,310</b>	<b>3,970</b>	<b>4,520</b>	<b>5,070</b>

Source: Living Wage team analysis

\*detailed information on the calculation method of the amounts can be found on the following slides

# Apartment rental cost

## Methodology for estimating accommodation costs



The equipment of the apartment is included in the rental costs in accordance with market standards, i.e. if rental offers include furnished apartments, they are taken into account.



Assumptions regarding accommodation and cost sharing vary depending on the family configuration, for example, it is assumed that a single person rents a one-room apartment in a three-room apartment (shared).



The costs of utilities in each location are estimated in relation to the size of the apartment.



Utility costs include electricity, gas and water.



Utility costs are taken into account at a low level (basic standard) or typical level (decent and comfortable standard).

### Type of Housing

Family configuration	Number of rooms	Cost allocation method
One person	3	3 people
One person + 1 child	1	One person
One person + 2/3 of the child's maintenance costs	2	One person
Couple	1	Depending on the number of working people (one or two people)
Couple + 1/2/3 child	2	

# Cost of renting apartments

## Rents in rental advertisements (September 2024 - November 2025)



### Cost of renting apartments

The set of charts presents the distribution of apartment rental costs in the city of Łódź.

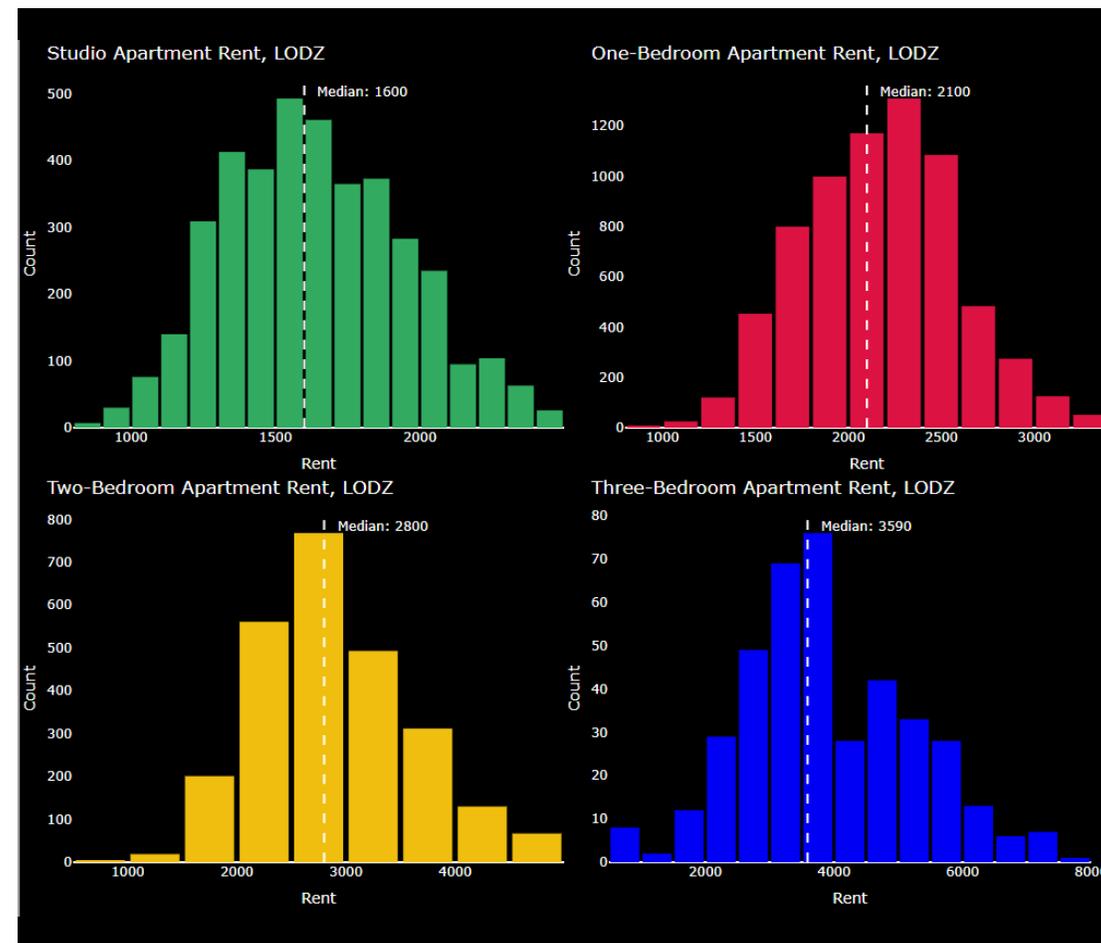
The data in the chart was collected from online advertisement pages in the period from September 2024 to November 2025.

The chart presents the following categories – studio – is a one-room apartment, one bedroom is a two-room apartment, two bedroom is a three-room apartment, three bedroom is a four-room apartment.

#### Methodology:

Due to the data collection method, it is not possible to separate prices that include additional costs from those that do not (rent, bills, fees). The advertisements were deduplicated. Advertisements are collected in a weekly cycle. If the system encounters the same advertisement after 30 days, it is counted again as a new one.

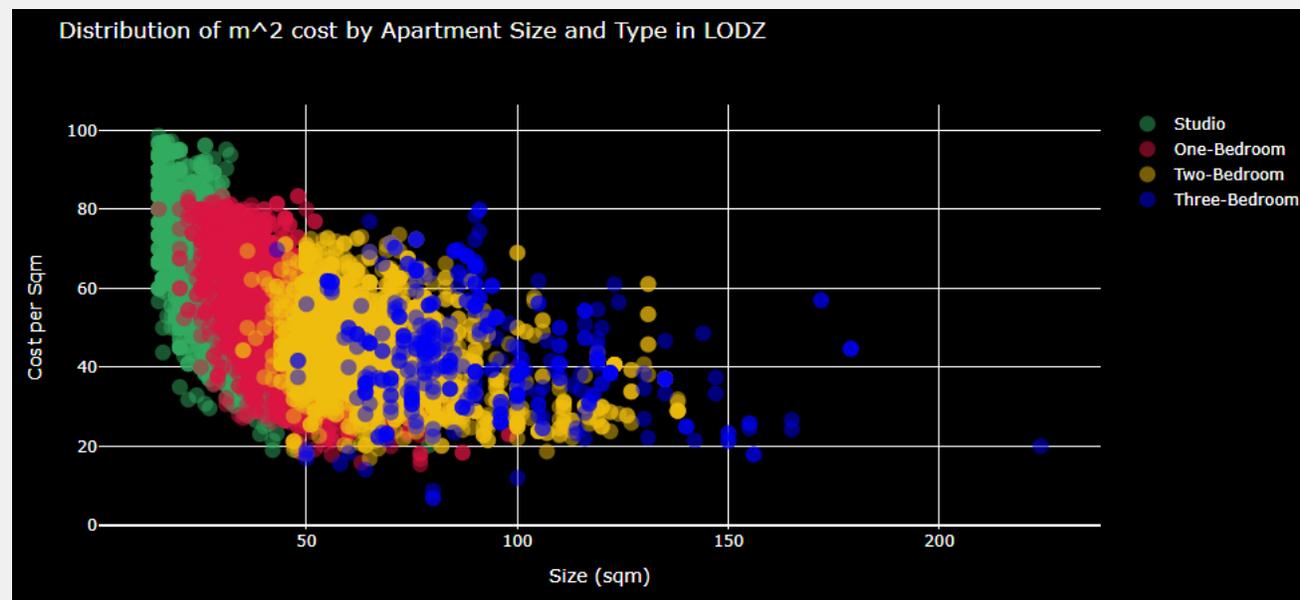
Outliers were rejected using the IQR method in the calculations. Records are also rejected where: the price is missing, the square footage is missing, the description is missing, records that have already been collected.



Source: Mercer's Living Wage Reports

# Cost of renting apartments

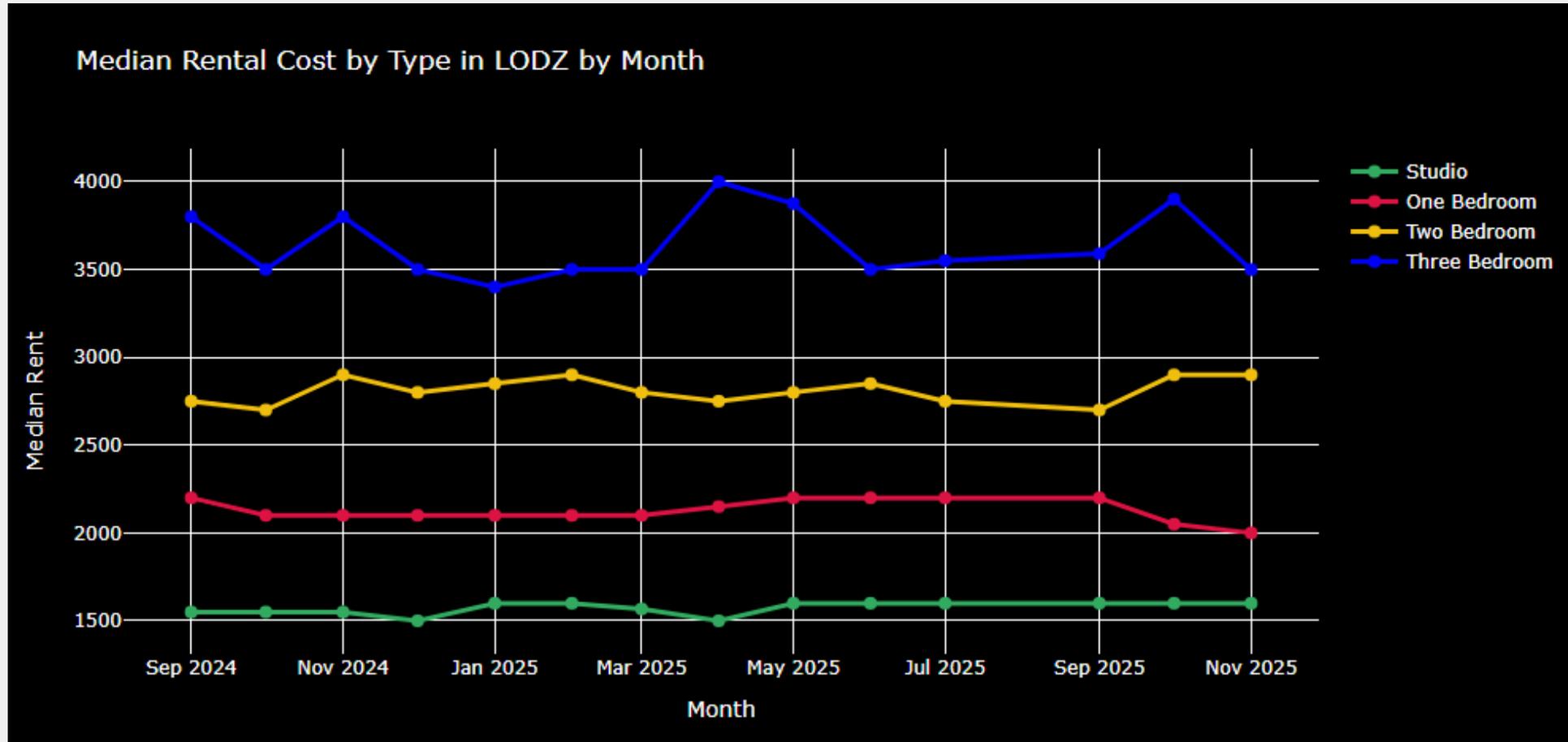
Cost per square meter depending on the size of the apartment (September 2024 - November 2025)



The presented chart shows the distribution of the cost per square meter of apartments in Łódź depending on their size and type. Smaller apartments, such as studios (green dots) and one-room apartments (red dots), are characterized by a higher cost per square meter, with prices reaching even around PLN 100/m<sup>2</sup> for the smallest sizes (approx. 20-40 m<sup>2</sup>). As the size of the apartment increases, the cost per square meter generally decreases. Two- (yellow dots) and three-room (blue dots) apartments have a larger area, but their cost per square meter is lower and mainly oscillates in the range of 20-60 PLN/m<sup>2</sup>. The largest three-room apartments can have an area of even over 200 m<sup>2</sup>, with the relatively lowest cost per meter.

# Cost of renting apartments

Change in rental costs over time (September 2024 – November 2025)



Source: data collected for the period of September 2024-November 2025, apartment rental websites  
Copyright © 2025 Mercer Services Poland Sp. z o.o. All rights reserved.

# Cost of renting apartments

Summary (cost distribution in centile terms), data for the period September 2024 – November 2025

Studio		One-Bedroom		Two-Bedroom		Three-Bedroom	
Centile	Value	Centile	Value	Centile	Value	Centile	Value
P10	1200	P10	1600	P10	2000	P10	2300
P25	1390	P25	1800	P25	2300	P25	3000
P40	1500	P40	2000	P40	2590	P40	3400
P50	1600	P50	2100	P50	2800	P50	3590
P75	1800	P75	2400	P75	3300	P75	4850
Average	1602	Average	2127	Average	2822	Average	3821
n	3860	n	6895	n	2555	n	403

# Transport

6



# Connectivity and Location

## Road and Rail Connectivity

Łódź is strategically located in the very center of Poland, at the intersection of major European transport corridors, which makes it a strong candidate for investment from a connectivity standpoint.

The city sits where the A1 (north–south, Baltic–Adriatic) and A2 (east–west, Germany–Poland) motorways meet, providing efficient road access to key Polish metros such as Warsaw, Poznań, Wrocław, Katowice and the Tricity, as well as onward links to Berlin, Prague and other European business hubs.

As a major rail junction, Łódź offers frequent intercity and regional train services, with competitive journey times to Warsaw and other core Polish cities, and it is integrated into important freight and intermodal routes supporting logistics and e-commerce operations.



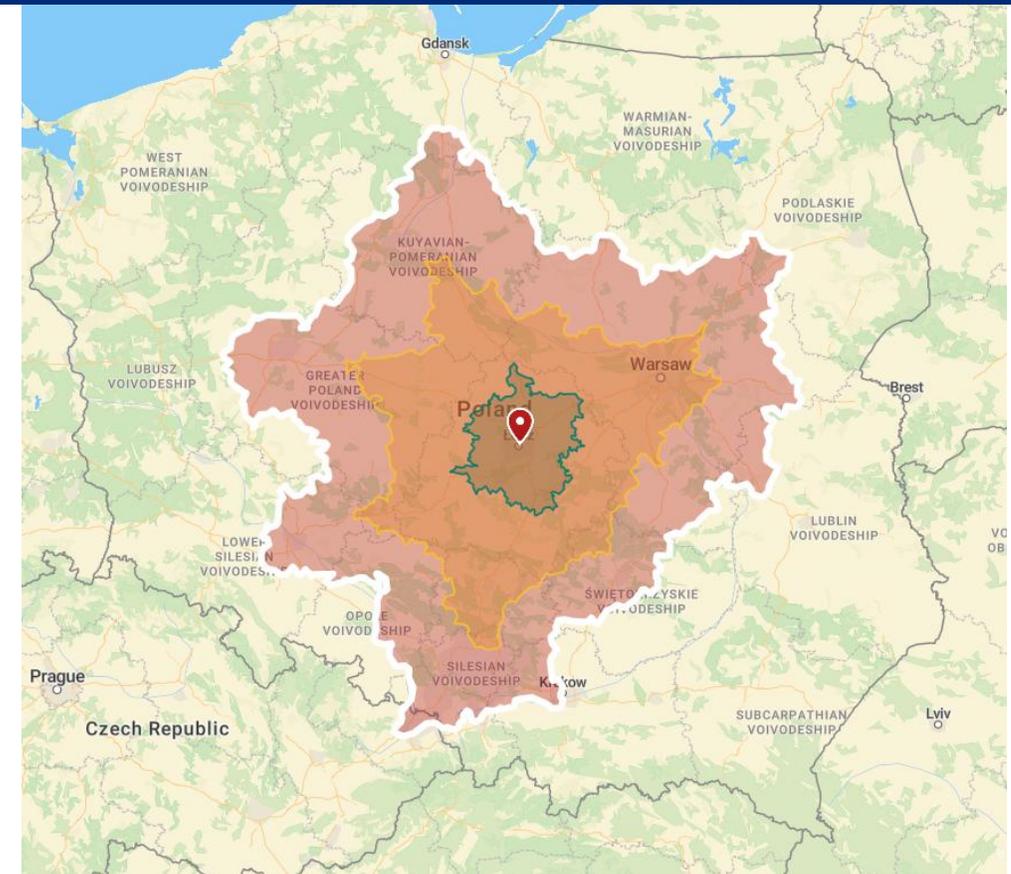
# Major Business Centers Reachability

## Łódź's Strategic Location

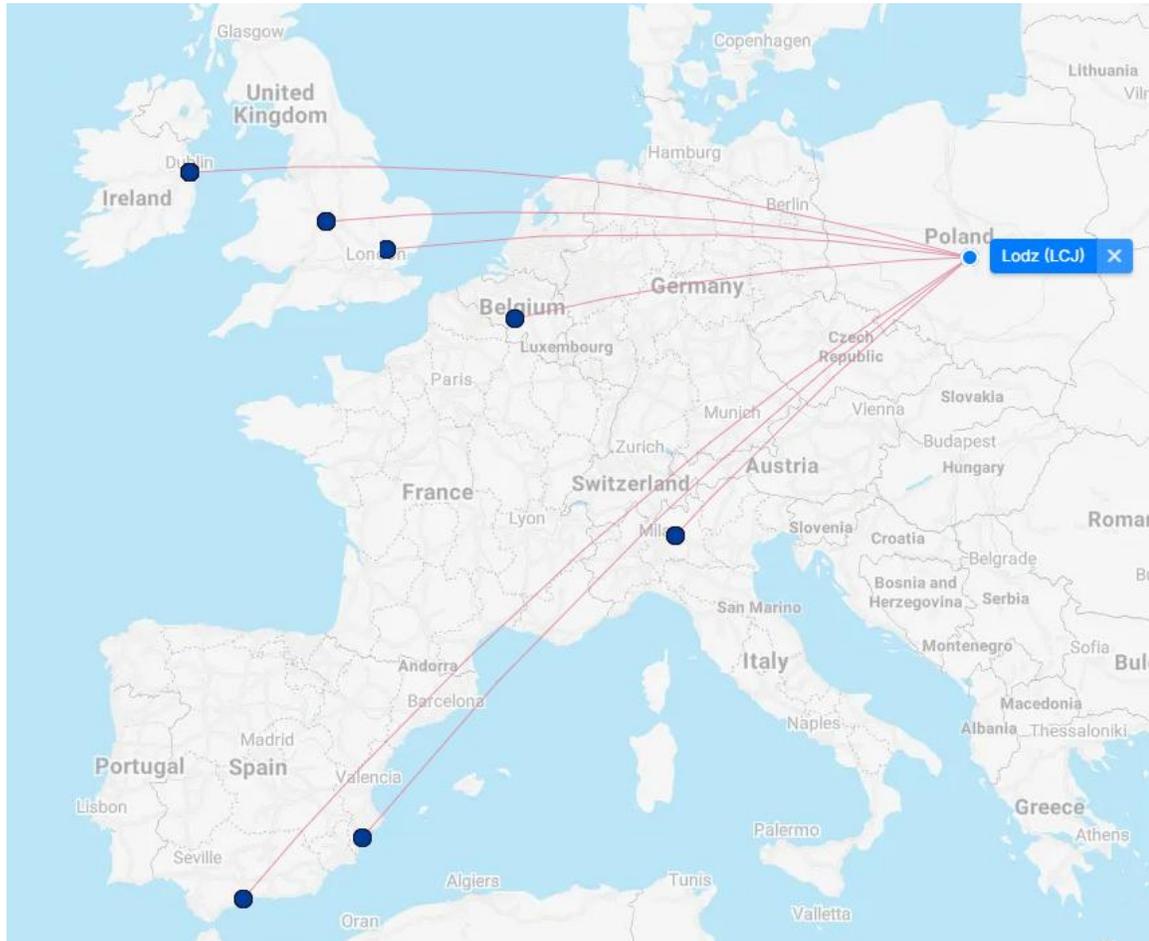
Łódź and its nearly-centroid position in Poland means that a large part of the country is reachable within under 3 hours. The diagram to the right shows the areas reachable within less than 1 hour (the green patch), less than 2 hours (the yellow patch) and less than 3 hours (the red patch) of driving.

Destination	Driving Time*	Public Transport*
Warsaw	1 h 35 min	1 h 30 min
Poznań	2 h 15 min	2 h 40 min
Krakow	3 h	3 h
Katowice	2h 15 min	2 h 40 min
Gdańsk	3h 30 min	4 h 20 min
Wrocław	2h 25 min	3h 10 min

## Reachability Map (isochrones for 1, 2 and 3 hours drive)



# Flight Connections



With the contents of the previous page in mind, the central positioning of Łódź allows relatively quick access to key business locations in the country such as Warsaw, Poznań, Kraków, Katowice, along with the international airports in those locations (WAW, WMI, POZ, KRK, KTW).

	Direct Destinations
LCJ	Łódź Władysław Reymont Airport (LCJ) in Poland has direct (non-stop) flight connections to 7 destinations in 5 countries.
WAW	WAW (Warsaw Chopin Airport, Poland): Over 100 direct flight destinations globally, as it is a major international airport and hub in Poland.
WMI	WMI (Warsaw Modlin Airport, Poland): About 30-40 direct destinations, primarily low-cost carriers serving European routes.
POZ	POZ (Poznań Ławica Airport, Poland): Around 30-40 direct destinations, mostly European cities.
KTW	KTW (Katowice Airport, Poland): Approximately 50-60 direct destinations, including European and some international flights.
KRK	KRK (Kraków John Paul II International Airport, Poland): Over 70 direct destinations, mostly across Europe with some international routes.

# Travel time to key business centers

City/Region	Why It Matters	Typical Mode(s)	Indicative Connectivity Details	Notes
<b>Warsaw</b>	Poland's largest market; national HQs, finance, tech, government	 Rail;  A2 motorway	Rail ~70–80 min today; planned ~40 min via CPK HSR; frequent IC/TLK services; A2 corridor for road access	Critical for corporate, public sector, and investor outreach
<b>Poznań</b>	Manufacturing, logistics, shared services	 Rail;  A2 motorway	Direct rail typically ~2.5–3.5 hours; A2 provides fast east–west access	Strong westward access to Germany via A2
<b>Wrocław</b>	Advanced manufacturing, IT/tech, startups	 Rail;  S8/A8	Frequent rail; road via S8 corridor; competitive tech talent pool	Good for high-value manufacturing and IT near Łódź
<b>Katowice / Metropolis GZM (Upper Silesia)</b>	Heavy industry, automotive, metallurgical cluster	 A1;  Rail	Direct road via A1 north–south backbone; regular intercity rail	Key for supply chains, large industrial buyers
<b>Kraków</b>	Tech, BPO/SSC/GBS, life sciences	 Rail;  A1/S7 links (via network)	Regular rail; multimodal road via A1 + connectors to S7	Strong shared services ecosystem
<b>Tricity (Gdańsk–Gdynia–Sopot)</b>	Port/logistics, shipbuilding, energy	 A1;  Rail	Direct A1 corridor to Baltic ports; frequent rail	Strategic for import/export and maritime logistics

# Appendix



# Living Wage Methodology



# Mercer's living wage definitions

Compensation packages equaling to local living wage and perception of living wage differ from company to company



## Basic Living Wage

Purchase of **essential** goods and services to allow for a **healthy and functional standard** of living. It meets the practical needs of the employees' **basic** surroundings



## Decent Living Wage

Purchase of **necessary** goods and services to provide a **healthy and comfortable standard of living**. It meets the needs of employees in **modest** surroundings



## Comfortable Living Wage

Purchase of **appropriate** goods and services to support a **healthy and comfortable standard of living**, including access to inexpensive occasional pleasures (such as leisure and social activities). It meets the needs of employees in a **comfortable but not extravagant lifestyle**

**Living wage is not a one size fits all concept...**

Agreeing on what a living wage means for the business can be notoriously complex!

# General considerations



The calculation of Living Wages for different family or household characteristics reflects the diversity in the life-work situations found around the globe



Mercer calculates Living Wages for 12 family configurations: Single, Single + 1/2/3 children, Couple (1 or 2 earners) + 1/2/3 children



Living wage is presented proportionately to the number of contributors to the household budget (either 1 or 2 adults)



No differentiation concerning gender or age of children is applied



For Living Wage calculation, retirees in household are not considered



**There is not a single  
answer to what a sufficient  
cost of living is**

# General Considerations



Living Wage assumes that monthly expenses should be covered by regular monthly income from labor



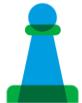
When workers receive in-kind bonuses such as food, housing or travel allowances, these could be treated as an addition to the (living) wage received in cash



Bonuses are not included in the calculation as these are irregular and their amount is uncertain



Living Wage is calculated based on full-time work



Overtime pay bonus is not accounted for, as Living Wage should be earned during normal hours



**Living Wage is compared to  
total regular spendable  
income**

# The Living Wage's composition

## Income tax



### Income tax

- Hypothetical personal income tax
- Hypothetical social insurance contributions

# Income Tax

## Methodological information



To calculate the gross value of the Living Wage, the income tax paid by the employee and the social security contributions corresponding to the net value are added together (variable deductions are not considered in the calculation)



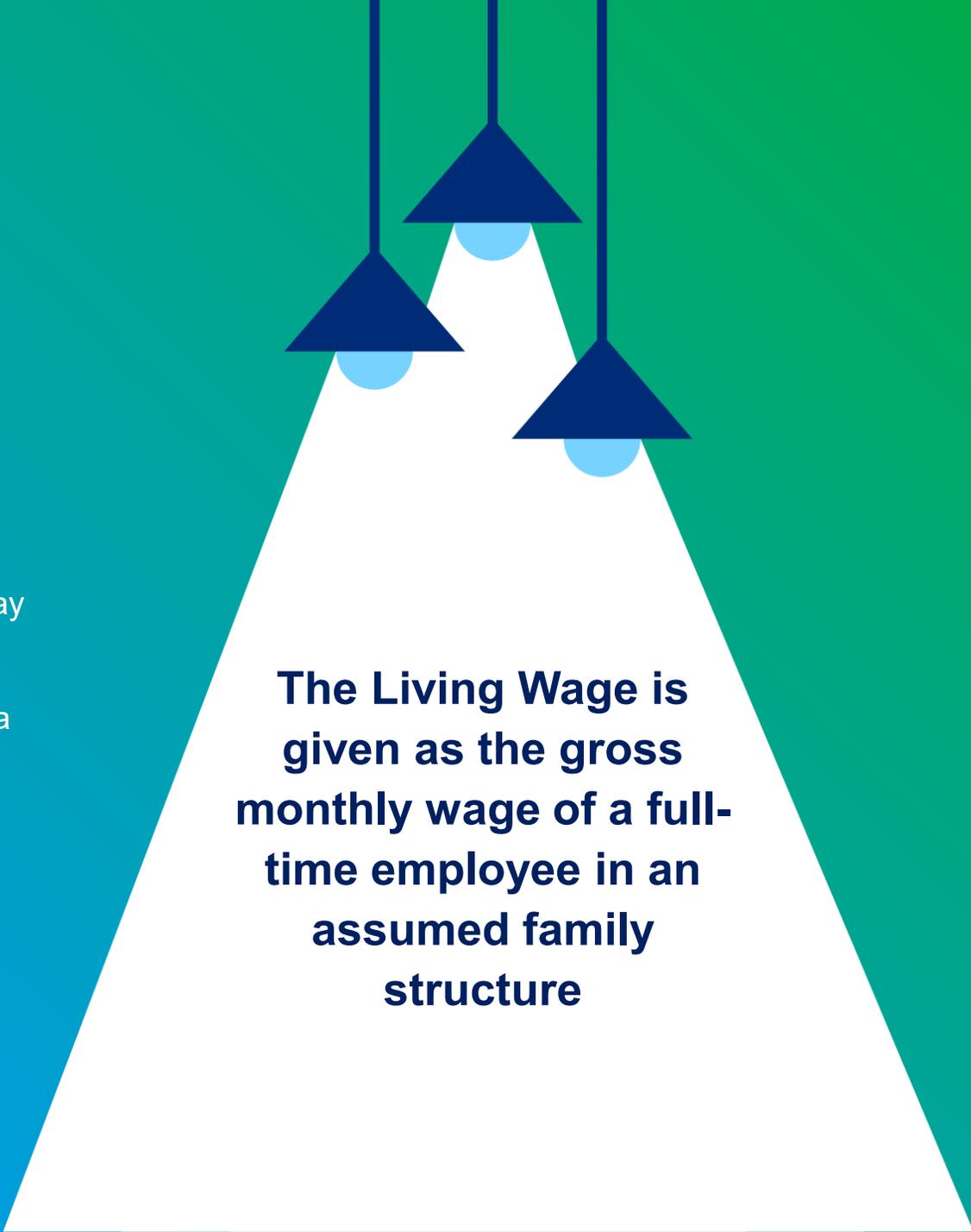
All tax calculations consider the applicable family allowances. Therefore, in some cases the gross value may be lower than the net salary + family allowances. In such cases, the gross wage is assumed to be equal to the net wage. This assumption was made to avoid cases where a worker receives a salary below the Living Wage simply because he receives a family allowance



The tax information is collected annually



The ratio of net to gross income depends on the country, sometimes also on a region and salary level



**The Living Wage is given as the gross monthly wage of a full-time employee in an assumed family structure**

# Income Tax

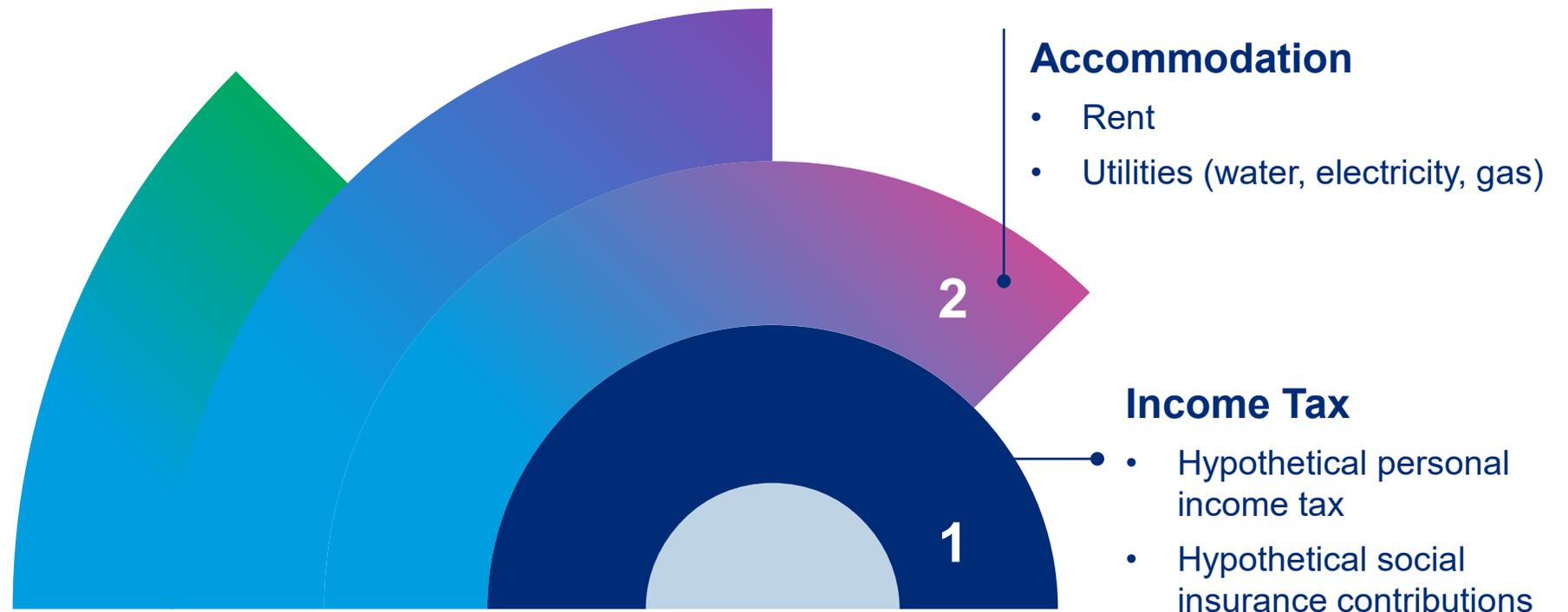
## Exclusion of liability

Mercer is not a professional tax consultant, and therefore the calculation is not intended as a substitute for tax advice. Please note that the tax calculations are only a guideline and are not intended or implied to replace professional advice. Accordingly, Mercer recommends seeking the advice of a professional tax advisor in tax matters.



# The Living Wage's composition

## Rent and additional costs



# Accommodation and utilities

## Details of the methodology 1/2



Living Wage is family/household specific, and housing costs are usually one of the largest components of Living Wage

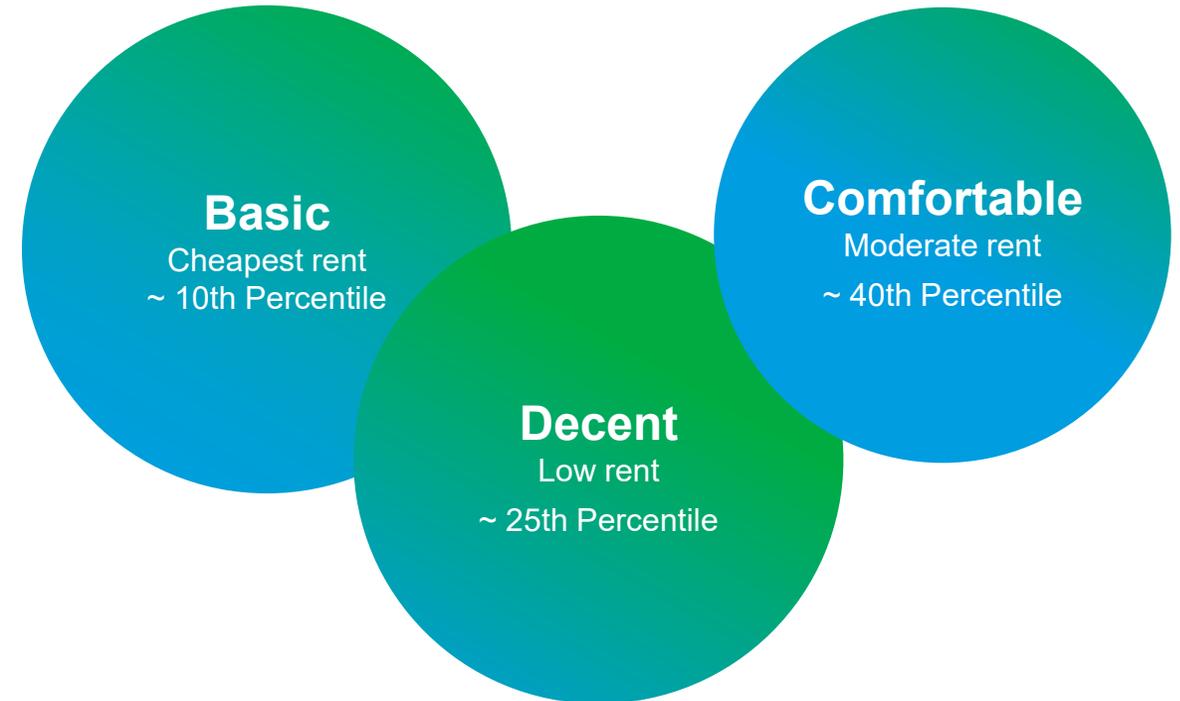


In some locations, it is common for workers to already own a flat or live with their families. In such cases, the approach of private housing rental remains largely accepted as an approach to calculating an "adequate living wage", as it is not biased towards homeowners who have a lower cost of living than the "portion" of the population who do not own a home



The prices used in the analysis are sourced from local real estate websites or the Mercer Housing Report. Proxy location/regional/country offers, or statistical data are used if no or little location-specific offers are available

## Market rental price according to Living Wage Standards



Given the different sources and sample sizes, the above-mentioned market rent percentile assumptions should be considered as indicative only

# Accommodation and utilities

## Details of the methodology 2/2



The furnishing of the dwelling is included in rental costs according to market standards i.e., if rental offers include furnished dwellings, these are considered



Assumptions for accommodation and cost split differ per family configuration, **for example, it is assumed that a single person rents a one-bedroom apartment in a three-bedroom apartment (shared)**



The utilities costs per location are estimated in relation to the size of the dwelling



The utilities costs include electricity, gas and water



Utilities costs considered are low (basic standard) or typical (decent and comfortable standard)

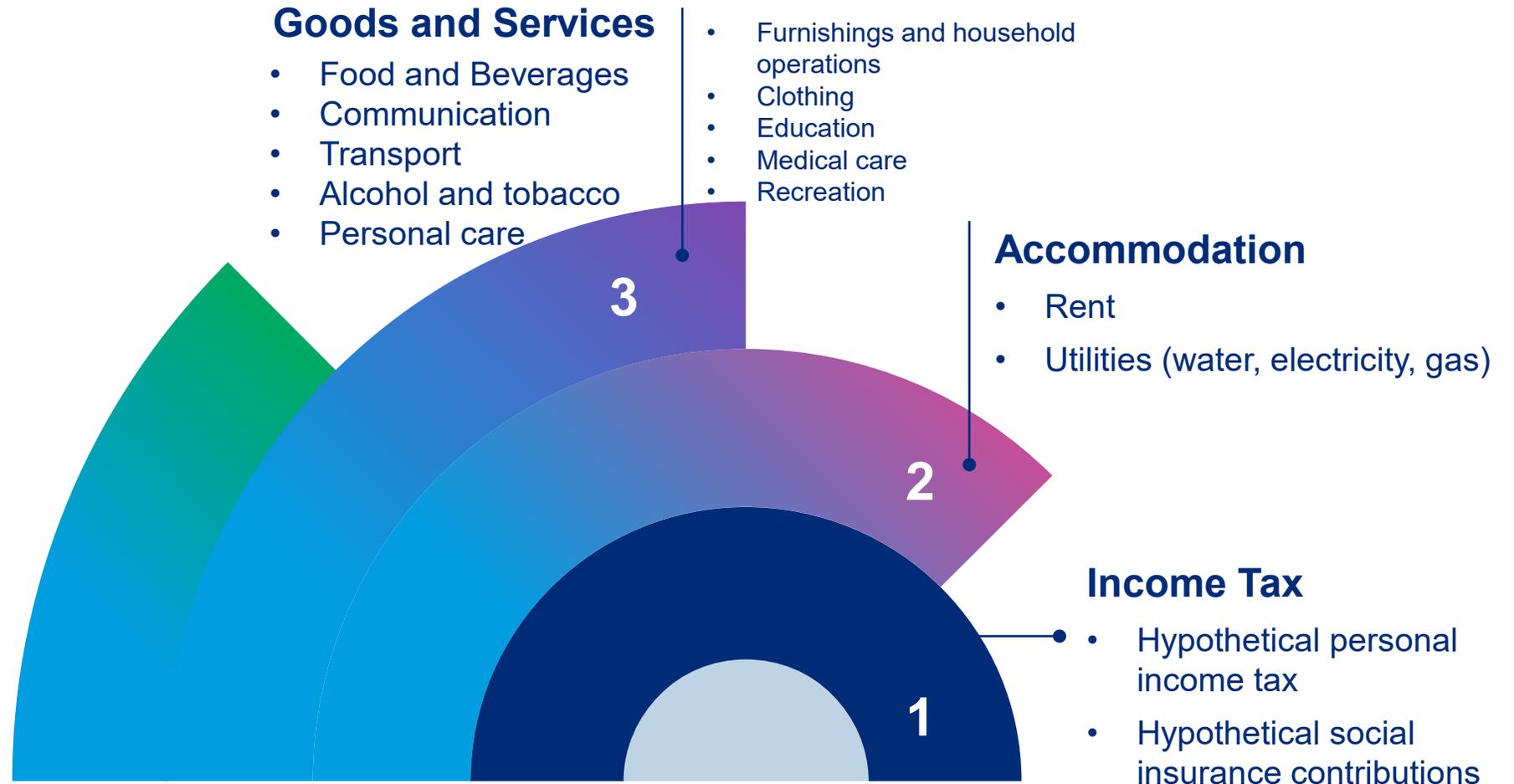
### Housing standard

Family Configuration	Bedrooms	Allocation of costs
Single	3	3 people
Single + 1 Child	1	one person
Single + 2/3 Children	2	one person
Couple	1	depending on the number of earners (one or two persons)
Couple + 1/2/3 Children	2	

People live in households of different size and composition

# The Living Wage's composition

## Goods and Services



# The Living Wage's composition

**Goods and Services - Reconciliation of expenditure behaviour and actual cost data**

**The approach is to reconcile expenditure patterns and actual cost data:**

- Less dependent on data
- Less susceptible to data quality
- Requires minimum assumptions about purchases, so that
  - it can be more easily adapted to the specificities of consumption patterns in different countries; and
  - less likely to lead to distortions and controversies
- Simple, transparent and intuitive

## **PATTERN OF EXPENDITURE**

Research on the distribution of household expenditure

## **LIVING WAGE**

## **COST DATA**

Based on a basket of goods and services

# Goods and Services

## Goods and Services

The following cost categories have been included in the model:



Food and Beverages



Transport



Communication



Personal care



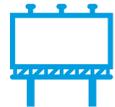
Furnishings and household operations



Clothes and footwear



Medical care



Education



Leisure activities are included in the “decent” and “comfortable” standards. Alcohol and tobacco are optional.

- Expenditure on personal care, furnishings and household operations, clothes and footwear, education and medical care are based on studies of the distribution of household expenditure
- The value of these "estimated other costs" (personal care, furnishings and household operations, clothing and footwear, education, medical care (and recreation for a decent standard) **are calculated based on their proportion to total expenditure on food in conjunction with total expenditure on transport** - derived from average household expenditure patterns calculated by Mercer based on the publications of the country statistical office

# Goods and Services

## Food and Drinks 1/2



Food expenses are the main component of the basket of Living Wage and are determined by the price of the “food basket”



**Food prices are derived from the Mercer Cost of Living Survey**, which collects the actual prices of goods in hundreds of locations around the world, publicly available statistical data or own research through network of shoppers



Low to moderate prices within a particular location are considered



For Living wage purpose, it is assumed that food is prepared at home



If data is not available for a particular location, the prices of a proxy city or similar location shall be used, or an estimate is made based on the statistical office or other publicly available sources



**There is no uniform answer to the question of what a reasonable cost of living is**

# Goods and Services

## Food and Beverages 2/2



The composition of the basket considers the differences between the different regions, e.g., Hungary, Serbia and Slovakia would all have the same basket for the analysis, i.e., for Eastern Europe



Due to the limited availability of comprehensive and consistent country-specific food data, regional/multi-country dietary models appear to be more reliable



Although calorie intake varies from region to region, **the model assumes the same calorie intake for all regions. However, it distinguishes between the type of work performed by a person and whether a family member is an adult or a child.** The model uses the following uptake quantities (see table on the right)

### Average daily calorie consumption (kcal / day)

White Collar (non-physical work)	2.267
Blue Collar (physical work)	2.833
Children / Adolescents	1.576
Partner	2.033

\* based on the US dietary guidelines

The composition of the products used (no indication of sex/work type) is scaled to the assumed daily calories per person per day suggested by the US Dietary Guidelines ([LINK](#)) for good health

In the children/adolescent's category, an average value is used which applies to both boys and girls aged between 2 and 17

# Goods and Services

## Transport



In a „basic standard of living“ it is assumed that families do not own a motorbike or a car and are therefore dependent on other means of transport



As public transport is available in most cities, **the price of a monthly public transport ticket is used as the transport cost for one adult and the reduced value (50% if no data on the discount is available) of the ticket for each child (if monthly pass is not available single tickets are considered)**



In areas where public transport is not available or in decent and comfortable standards, transport costs are calculated based on an average fuel consumption of 8 litres per 100 km. The analysis assumes that the car is shared by couples. The estimated distance is 30 km/day in decent and 60 km/day in comfortable standard



**Family members often commute to work or travel for their daily activities (e.g. shopping)**

# Goods and Services

## Communication



The prevalence of mobile communications and standards can vary greatly from country to country

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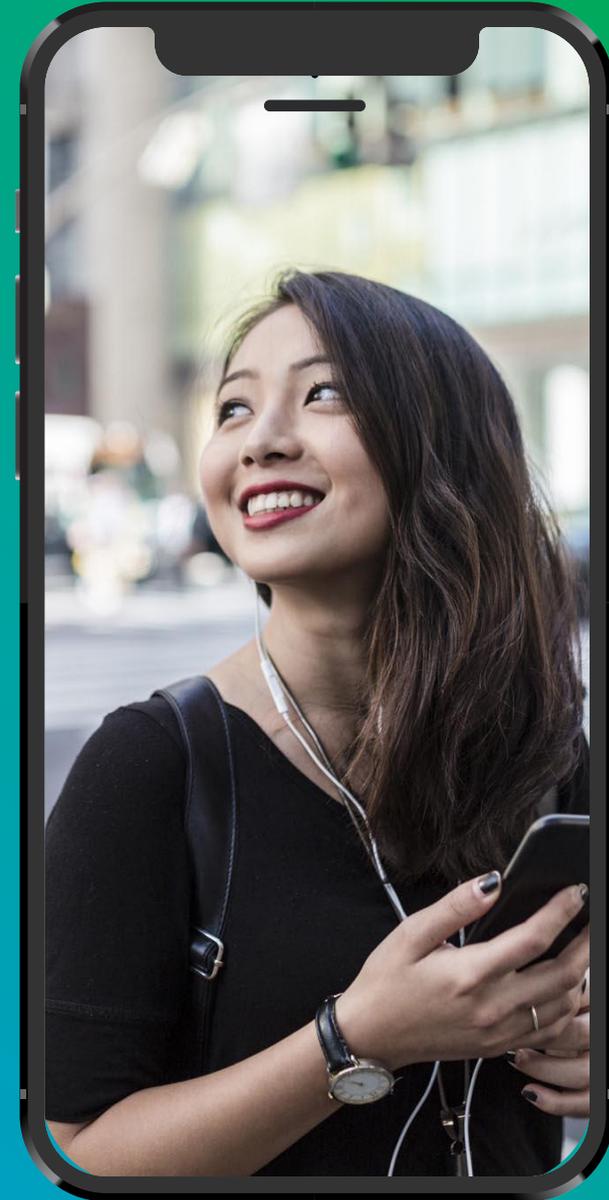


For mobile communications, the cost of a low-cost monthly subscription, which offers some data transmission and the ability to make calls is applied in the basic standard

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In the decent standard an additional Internet subscription for the household is considered and in the comfortable standard a TV package is also included

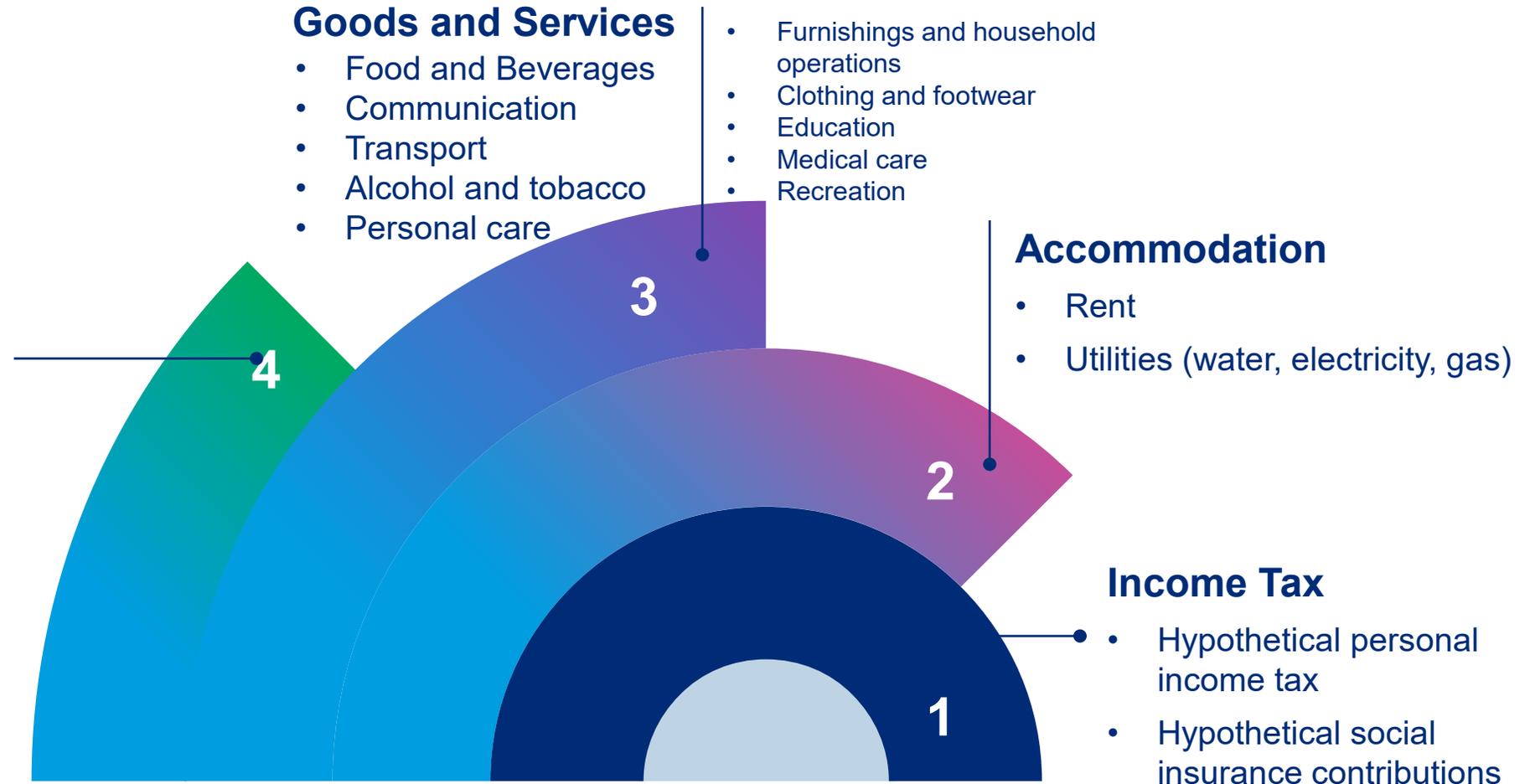


# The Living Wage's composition

## Reserve

## Reserve

Savings Unforeseen expenditure



# Reserves

## Details



When calculating Living Wage, the most important family expenses are considered, but there are other expenses that are referred to as unforeseen expenses and must also be considered (to ensure flexibility and resilience to unforeseen events)



It is difficult to arrive at a universal basket of goods and services catering for such additional demands when comparing multiple countries/regions



The lower margin of 5% is more appropriate if the calculation of the cost of living is more comprehensive (i.e., more elements are included)



**Normally, a reserve of 5-10 %  
is considered to for the  
unforeseen expenditures**



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