

Times Higher Education Impact 2024

Report on the aggregate performance of the public universities in the state of São Paulo

Because the <u>17 UN-defined goals</u> are designed to attend to the interests of the whole of society, we will look at this ranking from a predominantly systemic approach – how is public higher education in the state of São Paulo attending to the sustainable development goals?

Because impact and contribution to goals are experienced by society as a whole, the individual institution's contribution is less important than any one institution. Therefore, we will be looking at overall areas that all six institutions could improve, rather than analysing the institutions individually.

This report responds to the following questions-

- In which SDGs are the universities in the state of São Paulo strong? Which indicators likely explain this strength?
- In which indicators could the universities in the state of São Paulo be stronger?
- Which priority actions should public universities consider to strengthen their performance in multiple subrankings?

These questions produced three priority actions that the universities should consider to improve their contributions to sustainable development, as defined by this ranking:

- Intensify and reinforce dialogue and co-construction mechanisms through a
 policy and expertise exchange platform with relevant public authorities and
 policymaking organs to intensify and formalise contributions to policymaking.
- Increase and incentivise extension activities in key themes.
- Introduce a policy of sourcing ethical, sustainable and locally produced goods from small producers on campus.

These overall actions will affect performance in multiple subrankings, and improve the impact of the university's actions and quality of life of its community.

As we have mentioned in previous years' technical notes, Projeto Métricas has serious misgivings about the methodological validity of this ranking, specifically with regards to problems of incoherent comparison, over aggregation of data, small intervals giving



impressions of false differentiation, among others. These criticisms can be found in detail in the technical notes of 2023 and 2022¹.

This year, we will look more closely at the non-research-based indicators – the self-reported indicators that are not supplied by Scopus, but by university data departments. Because of the aggregated nature of the ranking, it is not possible to comment on performance in individual indicators. The indicators of the goals we discuss in this document are presented in full as tables in the annex to this document.

How are the six public universities responding to the goals as a whole?

To answer this question, we aggregated the scores of each institution in each of the goals, to see which goals received most points, and which received fewest. Because the Times Higher Education is predominantly size-independent, this is an imperfect measure, because it measures institutional environments rather than net contributions, but it serves as a proxy to show which goals the universities are best equipped to respond to.



¹ <u>THE Impact Ranking 2023</u> and <u>THE Impact Ranking 2022</u>. Projeto Métricas / Fapesp



From this graph, we can see that the goals that the universities, together, are strongest in are industry, innovation and infrastructure, decent work and economic growth and partnerships for the goals. All of these three had an aggregate score of over 350 between the six universities.

In the group of goals with strong performance between the universities, with a score of over 300, are peace, justice and strong institutions, sustainable cities and communities, affordable clean energy and zero hunger.

Finally, the goals in which the universities could be stronger, and could focus more on are life on land, life below water, climate action, responsible consumption and production.

What can we learn from the best performing areas?

Industry, innovation and infrastructure is the outstanding area of performance for the state of São Paulo, and especially within USP (95.7), Unicamp (95.9) and Unesp (99.9 points), with the federal universities also performing well. In large part, this is due to the long running and effective programmes such as Unicamp <u>empresas filhas</u>, Poli-USP's empresas filhas and Unesp's Relatorio de Empresas Filhas, Startups e Spinoffs.

Furthermore, the patents citing research indicator has also been a strong area for the universities, in particular for USP and Unicamp.

	Patent	Scholar
	S	ly
Entity	Count ²	Output
Universidade de São Paulo	2243	87265
Universidade Estadual de Campinas	905	30213
Universidade Estadual Paulista Júlio de		
Mesquita Filho	511	31633
Universidade Federal de São Carlos	252	11572
Universidade Federal de São Paulo	450	17188
Universidade Federal do ABC	141	6225

In the subranking decent work and economic growth, Brazilian institutions benefit from a much more protective labour regime and relatively low number of outsourced or vulnerable staff, when compared to more corporate model universities in Europe and

² Patents that cite a piece of research (article, technical report or other publication) written by an author affiliated to the university.



the Anglophone world, which make up a majority of this ranking. By global standards, this makes Brazilian institutions responsible and sustainable employers. Furthermore, because temporary contracts are not a feature of university employment practices, this contributes to a high performance in this SDG.

As the table in the annex shows, this subranking is composed mainly of policy requirements, rather than specific activities related to outreach. As most of these requirements are either already part of the institutional fabric of Brazilian HEIs, or legal requirements for the Brazilian public sector, the universities score well in this section.

The curricularisation of student volunteering and outreach also contribes to the universities' high performance in this SDG.

In **partnerships for the goals**, coauthorship of articles with low and lower middle income countries is an area that Brazilian institutions struggles with, but as we have commented in previous reports, we feel that this is a problematic indicator because it overlooks contributions to our own deprived areas, which often have low HDIs that would put them at the level of lower middle income countries. It is also unclear whether this is the best measure to judge scientific collaboration – for example, technically India is classified as lower middle income, and yet has an extremely highly developed higher education and research system. To improve in this subranking, universities should consider strengthening ties with ALESP on thematic areas, as well as de-bureaucratising the process of working with the third sector to encourage greater collaboration. This should be measured in the context of a standard format that considers consistent types of evidence for interaction and impact.

What can we learn from mid-performing areas?

Peace, justice and strong institutions is an area that, given the state universities' explicit nation building mission they were given when they were established, we would expect to be an outstanding strength. In fact, it is UFABC who score highest in this subranking. Universities wishing to improve their performance in this subranking should look to the "working with government" section of indicators. We know from our work with ALESP that there is a high demand for a neutral platform for stakeholders to discuss challenges (4%), providing information and expert advice to policymakers (6.4% each). These are areas of relative underdevelopment in Brazil, and show clear space for improvement for the public universities. The FAPESP initiative to <u>establish Centres of Science for Development (CDD)</u> are a relevant and important move towards this target. Finally, strengthening consultive councils in institutional planning and evaluation could be worth up to 6.7%.

Sustainable cities and communities is an area of great importance for the universities, given the complex urban challenges facing Brazilian cities. It is therefore an



area that the universities should be looking to excel in. For USP, the section on heritage and arts is easier to perform well than for other universities, because it maintains more buildings and/or monuments or natural heritage landscapes of cultural significance (3.75%) than the others. Public access to libraries, open spaces and artistic events are areas that all six universities can contribute to.

The group of indicators marked "sustainable practices" signal some challenges for the universities, however. Infrastructure challenges related to sustainable commuting (discouraging the use of individual cars, promotion of cycling, pedestrianisation and green public transport) could be strengthened, when compared to European campuses in particular. Furthermore, the provision of affordable housing for students and staff has been a long standing serious deficit for Brazilian public universities, with demand far outstripping limited supply.

Affordable and clean energy is an area of strength for USP, due to the quantity of research, policy and outreach produced by the university in biofuels and other initiatives. Policies on carbon management, energy waste review and divestment from carbon intensive industries are areas the universities could seek to gain advantage. Likewise, supporting governments on policy development is an area that the universities could seek to formalise and strengthen their bonds (as with the indicators for peace, justice and strong institutions), while support for startups related to clean energy and energy efficient technology would have spillover performance effects for the industry, innovation and infrastructure subranking.

Zero Hunger should be an outstanding area of performance for the state of São Paulo, given the contribution of agricultural sciences making large contributions to research and to graduates working in agriculture, as well as the bandejão system making extremely important contributions to student hunger. In order to increase this performance further, the universities should consider the set of indicators entiteld "National Hunger". Strengthening transfer of skills and knowledge (4.8%) would be a good strategy, as would the staging of events to connect food producers. The major gain for this and the life on land subranking would be to prioritise purchase of products from local, sustainable sources (4.8%). Because of the complex public procurement processes involved in the university food supply, large producers providing industrialised food tend to prevail in university campuses. Universities should strongly consider introducing an initiative that encourages the use of healthy, sustainably produced, local food.

What can we learn from the goals in which São Paulo could improve?

Life on Land is an area that the universities should be performing better in, given their reasonably strong performance in the closely related zero hunger subranking and traditional strength in life and biological science. The first indicator that universities should consider is the policy to ensure that food on campus is sustainably farmed. The



universities could seek to extend their collaboration with local communities in education, shared management of environments, and further commitment to extension courses for the community on sustainable management, development and tourism.

For **Life below Water**, the conclusions are similar – the universities must commit to extending extension activities to the local community, ensure that seafood offered on campus is sustainably farmed and managed. The links between aquiculture research and practice should be strengthened, either through collaborative research, licensing of technology produced or knowledge transfer. At the same time, universities should have plans in place to eradicate plastic waste wherever possible.

That **Climate Action** is generally an area that the universities could improve in is a surprise. In this subranking, the main area that the universities could stand to improve is by taking a more proactive and structured role in working with state, municipal and federal governments on climate change mitigation and disaster planning.

Finally, **Responsible Consumption and Production** is an area of notable underperformance. First, a policy of ethical sourcing of goods would also have an overspill effect for zero hunger and life on land, and so should be considered priority. Ensuring that this policy extends to third partners, such as food suppliers, would also be important. Likewise, a policy on minimising the use of plastics would also have an effect on the life below water subranking. Extending the amount of waste that is recycled across the university, and monitoring how much is recycled, would also bring an improvement to this indicator.

Conclusions

What should universities focus on to improve their overall performance in this ranking?

With so many indicators and priorities in this ranking, here we have identified two key priority actions that would strengthen performance in multiple subrankings, as well as improving the social impact of the universities, and everyday life for students on campus:

- Create a permanent platform for sharing expertise, policymaking and knowledge with relevant public authorities that formalises and extends collaboration between policymakers and researchers on a range of key issues.
- Prioritise small local producers of sustainably produced goods in all university concessions to ensure sustainable, healthy and affordable lifestyles on university campuses.



 Increase and incentivise extension courses for local communities, ensure that they are measured and valued appropriately. A good example of this is the recent USP <u>Social Impact Awards</u>, a joint initiative between the Pro-Rectorship of Culture and University Extension and the Office for Indicator Management (Egida).

Focusing on these three priorities are the best way for universities to improve their performance in multiple SDGs simultaneously, as well as improving the quality of life of the campus community, as well as extending the impact and maximising the value of the knowledge and expertise in the university.



Annex : Indicators used to calculate the Times Higher Education Impact 2024 ranking

The SDGs in which public universities are strongest

Industry, innovation and inf	rastructure
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Indicator	Weight	Description	Source
Research on industry, innovation and infrastructure	11.6%	Number of articles published on the Scopus index.	Scival
Patents citing university research	15.4%	The number of patents from any source that cite research conducted by the university. Patents are sourced from the World Intellectual Property Organisation, the European Patent Office, and the patent offices of the US, the UK and Japan.	These data are available from Scival, while Lens.org has a wider coverage of sources.
University spin-offs	34.6%	University spin-offs are defined as registered companies set up to exploit intellectual property that has originated from within the institution. This metric looks at spin-offs that were established on or after 1 January 2000. They must have been established at least three years ago and still be active.	Self reported data
Research income from industry	38.4%	The amount of research income an institution earns from industry, adjusted for purchasing power parity (PPP), scaled against the number of academic staff it employs.	Self Reported data

Decent Work and Economic Growth

Indicator	Weight	Description	Source
Research on economic growth and employment	27%	Proportion of papers in the top 10 per cent of journals as defined by Citescore (14%) Number of publications (13%)	Scival



		Payment of a living wage to staff and faculty (2.45%)	
Employment practices	19.6%	Recognition of union and labour rights (2.45%)	Self reported data
		Policy on ending discrimination in the workplace (2.45%)	
		Policies against modern slavery, forced labour, human trafficking and child labour (2.45%)	
		Guarantees of equal rights for outsourced labour (2.45%)	
		Policy on pay scale equity and gender pay gaps (2.45%)	
		Measuring and tracking pay scale gender equity (2.45%)	
		Processes for employees to appeal decisions on rights and/or pay (2.45%)	
Expenditure per employee	15.4%	University expenditure x the number of employees, normalised by regional GDP per capita.	Self-Reported
Proportion of students taking work placements	19%	The number of students with an employment placement of more than a month required as part of their studies, divided by the total number of students. All data are provided as full-time equivalents.	Self-Reported
Proportion of employees on secure contracts	19%	The number of employees (both academic and non-academic) on contracts of more than 24 months, divided by the total number of employees. All numbers are provided as full-time equivalents. This explicitly excludes short-term contracts required to cover for maternity or paternity leave.	Self-Reported

Partnerships for the Goals

Indicator	Weight	Description	Source
Research	27.1%	Proportion of academic publications with co-author from lower- or lower-middle-income country (13.55%)	Scival



		Number of publications that relate to the 17 SDGs (13.55%)	
Relationships to support the goals	18.5%	Relationships with regional NGOs and government for SDG policy (3.7%)	Self reported data
		Cross-sectoral dialogue about SDGs with government or NGOs (3.7%)	
		Collaborating internationally to capture data relating to SDGs (3.7%)	
		Working internationally to develop best practice on tackling SDGs (3.7%)	
		Collaborating with NGOs to tackle SDGs through student volunteering programmes, research programmes or educational resources (3.7%)	
Publication of SDG reports	27.2%	The existence of specific data on performance for each of the SDGs.	Self Reported
Education on the SDGs	27.2%	Commitment to meaningful education around the SDGs across the university, relevant and applicable to all students (9.06%)	Self Reported
		Dedicated courses (full degrees, or electives) that address sustainability and the SDGs (9.06%)	
		Dedicated outreach educational activities for the wider community, which could include alumni, local residents, displaced people (9.06%)	

SDGs in which the São Paulo public universities show Mid ranged performance

Peace Justice and Strong Institutions

Indicator	Weight	Description	Source
Research on peace and justice	27%	Proportion of papers in the top 10 per cent of journals as defined by Citescore (10%) Field-weighted citation index of papers produced by the university (10%)	Scival



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Governance	26.6%	Elected representation on the university's governing body (3.35%) Recognition of an independent students' union (3.35%) Policies to engage local stakeholders (3.35%) Participatory bodies to engage local stakeholders (3.35%) Policies on organised crime, corruption and bribery (3.35%)	Self Reported
		Policies supporting academic freedom (6.6%)	
		(3.25%)	
Working with government	23.2%	Provide expert advice to government (6.4%) Provide outreach to policy- and lawmakers (6.4%) Undertake policy-focused research in collaboration with government	Self Reported
		Provide a neutral platform for political stakeholders to discuss challenges (4%)	
Proportion of graduates in law and civil enforcement	23.2%	The number of graduates in law or civil policing subjects divided by the total number of graduates. All courses must include a positive ethical dimension.	Self Reported

Sustainable cities and communities

Indicator	Weight	Description	Source
Research on sustainable cities and communities	27%	Proportion of papers in the top 10 per cent of journals as defined by Citescore (10%)	Scival



		Field-weighted citation index of papers produced by the university (10%)	
		Number of publications (7%)	
Support of arts and heritage	22.6%	Public access to buildings and/or monuments or natural heritage landscapes of cultural significance at the university (3.75%)	Self reported
		Public access to university libraries (3.75%)	
		Public access to university museums and collections (3.75%)	
		Public access to open and green spaces (3.75%)	
		Provide artistic events for members of the public, such as concerts (3.8%)	
		Record and preserve local heritage (3.8%)	
Expenditure on arts and heritage	15.3%	Proportion of expenditure on arts and heritage	Self reported
Sustainable practices	35.1%	Targets around sustainable commuting (3.9%)	Self reported
		Promote sustainable commuting (3.9%)	
		Encourage telecommuting, remote working or condensed working weeks (3.9%)	
		Provide affordable housing for students and staff (7.8%)	
		Provide priority to pedestrians on campus (3.9%)	
		Work with local authorities on planning issues (3.9%)	
		Build to sustainable standards (3.9%)	

Affordable and clean energy

Indicator	Weight	Description	Source
Research on affordable and clean	27%	Proportion of papers in the top 10 per cent of journals as defined by Citescore (10%)	Scival
energy		Field-weighted citation index of papers (10%)	



		Number of publications (7%)	
University measures towards affordable and clean energy	23%	Policy to ensure all renovations or new builds follow energy efficiency standards (3.85%)	Self reported
		Plans to upgrade existing buildings to higher energy efficiency rating (3.85%)	
		Process for carbon management and reducing carbon dioxide emissions (3.85%)	
		Plan to reduce overall energy consumption (3.85%)	
		Reviews to identify areas where energy waste is highest (3.8%)	
		Policy on divesting from carbon-intensive energy industries, notably coal and oil (3.8%)	
Energy use	27%	The energy used per floor space (gigajoules/m ²) of university buildings.	Self reported
Energy and the community	23%	Programmes for local community to learn about the importance of energy efficiency and clean energy (4.6%)	Self reported
		Promote public pledge on 100 per cent renewable energy beyond the university (4.6%)	
		Services aimed at improving energy efficiency and clean energy for local industry (4.6%)	
		Inform and support governments on policy development related to clean energy and energy-efficient technology (4.6%)	
		Assistance for start-ups that foster and support	

Zero hunger

Indicator			Weight	Description	Source
Research hunger	related	to	27%	Proportion of research papers in the top 10 per cent of journals as defined by Citescore (10%)	Scival
				Field-weighted citation index of papers (10%)	



		Number of publications (7%)	
Campus food waste	15.4%	Campus food waste tracking (7.7%)	Self Reported
		Campus food waste per person (7.7%)	
Student hunger	19.2%	Programme addressing student food insecurity (4.8%) Interventions to target hunger among students and staff – for example, provide access to food banks (4.8%)	Self Reported
		Healthy and affordable food choices for all on campus, including vegetarian and vegan food (4.8%)	
Proportion of graduates in agriculture and aquaculture, including sustainability aspects	19.2%	Proportion of graduates who receive a degree associated with any aspect of food sustainability within an agricultural or aquacultural course, out of the institution's total number of graduates.	Self reported
National hunger	19.2%	 Provide food security and sustainable agriculture and aquaculture knowledge, skills or technology to local farmers and food producers (4.8%) Events for local farmers and food producers to connect and transfer knowledge (4.8%) Access to university facilities for local farmers and food producers to improve sustainable farming practices (4.8%) Prioritise purchase of products from local, sustainable sources (4.8%) 	Self reported

SDGs in which the public universities in São Paulo could improve

Life on Land

Indicator	Weight	Description	Source
Research on land ecosystems	27%	Proportion of papers in the top 10 per cent of journals as defined by Citescore (10%) Field-weighted citation index of papers produced by the university (10%)	Scival



		Number of publications (7%)	
Supporting land ecosystems through education	23%	Support or organise events aimed to promote conservation and sustainable use of land (4.6%)	Self reported
		Policy to ensure that food on campus is sustainably farmed (4.6%)	
		Maintain and extend existing ecosystems and their biodiversity (4.6%)	
		Educational programmes on ecosystems for local or national communities (4.6%)	
		Educational programmes or outreach on sustainable management of land for agriculture and tourism (4.6%)	
Policy formation		Policy to ensure the conservation, restoration and sustainable use of land ecosystems associated with the university (5.4%)	Self reported
		Policy to identify, monitor and protect threatened species affected by the operation of the university (5.4%)	
		Include local biodiversity in any planning and development processes – for example, construction of new buildings (5.4%)	
		Policy to reduce impact of non-native species on campus (5.4%)	
		Collaborate with local community to maintain shared land ecosystems (5.4%)	
Land-sensitive waste disposal	23%	Water quality standards and guidelines for water discharges (7.7%)	Self reported
		Policy on reducing plastic waste on campus (7.65%)	
		Policy on waste disposal, covering hazardous materials (7.65%)	

Life below Water

Indicator	Weight	Description	Source
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Research on life below water	27%	Proportion of papers in the top 10 per cent of journals as defined by Citescore (10%)	Scival
		Field-weighted citation index of papers produced by the university (10%)	
		Number of publications (7%)	
Supporting aquatic ecosystems through education	15.3%	Educational programmes on freshwater ecosystems for local or national communities (5.1%)	Self reported
		Educational or outreach programmes on sustainable management of fisheries, aquaculture and tourism for local or national communities (5.1%)	
		Outreach activities to raise awareness about overfishing, unregulated fishing and destructive fishing practices (5.1%)	
Supporting aquatic ecosystems through action	19.4%	Support or organise events aimed at promoting conservation and sustainable use of bodies of water (4.85%)	Self reported
		Policy to ensure that seafood on campus is sustainably harvested (4.85%)	
		Maintain and extend existing ecosystems and their biodiversity, either through research or engagement with industry (4.85%)	
		Work on technologies or practices to help marine industry prevent damage to aquatic ecosystems (4.85%)	
Water-sensitive waste disposal	19.3%	Water quality standards and guidelines for water discharges (6.45%)	Self reported
		Plan to reduce plastic waste on campus (6.45%)	
		Policy preventing and reducing marine pollution (6.4%)	
Maintaining a local ecosystem	19%	Plan to minimise physical, chemical and biological alterations of aquatic ecosystems (3.8%)	Self reported
		Monitor health of aquatic ecosystems (3.8%)	
		Develop and support programmes and incentives that encourage good aquatic stewardship (3.8%)	
		Collaborate with local community to maintain shared aquatic ecosystems (3.8%)	



Watershed management strategy based on diversity of aquatic species (3.8%)	
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Climate Action

Indicator	Weight	Description	Source
Research on climate action	27%	Proportion of papers in the top 10 per cent of journals as defined by Citescore (10%) Field-weighted citation index of papers produced by the university (10%)	Scival
		Number of publications (7%)	
Low-carbon energy use	27%	Measure the amount of low-carbon energy used (13.5%) Proportion of electricity from low-carbon sources	Self reported
		(13.5%) Dravida local education programmes or compaigns on	Solf
		climate change (4.6%)	reported
		Existence of a university climate action plan shared with local government and community groups (4.6%)	
		Work with local or national government to plan for climate change disasters that may include the displacement of people (4.6%)	
		Inform and support government on issues associated with climate change (4.6%)	
		Collaborate with NGOs on climate adaptation (4.6%)	
Commitment to carbon-neutral	23%	Commitment to carbon neutrality (11.5%)	Self reported
university		Achieve-by date (11.5%)	

Responsible Consumption and Production

Indicator		Weight	Description	Source
Research	on	27%	Proportion of papers in the top 10 per cent of journals	Scival
responsible consumption and production			as defined by Citescore (10%)	



		Field-weighted citation index of papers produced by the university (10%)	
		Number of publications (7%)	
Operational measures	26.7%	Policy on ethical sourcing of goods (4.8%)	Self reported
		Policy on the appropriate disposal of hazardous waste (4.8%)	i oportou
		Policy to measure amount of waste sent to landfill and amount recycled (4.8%)	
		Policy on minimising the use of plastics (4.8%)	
		Policy on minimising the use of disposable items (4.8%)	
		Evidence that these policies also apply to outsourced services (1.35%)	
		Evidence that these policies also apply to outsourced suppliers (1.35%)	
Proportion of recycled waste	(27%)	Measure the amount of waste generated and recycled across the university (13.5%)	Self reported
		Proportion of waste recycled (13.5%)	
Publication of a sustainability report	19.3%	Existence of a university sustainability report between 2020 and 2022. Publication of a sustainability report is a direct requirement of SDG 12 by the United Nations.	Self reported