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ECONOMICS



# **ECONOMIC IMPACTS OF *PITCH PERFECT: BUMPER IN BERLIN* IN GERMANY**

**A REPORT FOR THE MOTION  
PICTURE ASSOCIATION**

**FEBRUARY 2024**



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# EXECUTIVE SUMMARY

*“Pitch Perfect: Bumper in Berlin”* is a TV series produced by NBCUniversal based on a film series featuring an all-girl college acapella group—the Barden Bellas—that competes against other acapella groups nationally and internationally. The comedy series chronicles the adventures of Bumper Allen, who moves to Berlin to revitalise his music career after landing a big hit in the city. However, after moving to Germany, Bumper faces unexpected challenges and tough competition.

The show is set in Berlin, Germany, where it was also primarily filmed. The filming and production of the show generated considerable economic activity across the country, especially in the Berlin-Brandenburg region. The show’s production also supported activity in a wide range of industries through its procurement, and as those employed by the production and those employed by its supply chain spent money in the wider economy.

This study, commissioned by the Motion Picture Association (MPA), focuses on the show, and analyses the production’s total economic impacts in Germany in 2022, when the series was filmed. The study also considers the wider impact on Germany’s economy.

In 2022, **production of Season One of “Pitch Perfect: Bumper in Berlin” resulted in total spending in Germany of over €26.6 million.** Spending on local suppliers of goods and services was the main expenditure item, making up 75% of the total expenditure at approximately €19.9 million. The remaining 25% of spending was on wages and salaries for local production crew and other labour at €6.7 million.

Oxford Economics calculates that **the production expenditure of “Pitch Perfect: Bumper in Berlin” supported a contribution of over €31.3 million to Germany’s GDP in 2022.** We find that for every €1 million that the production’s own activities contributed to the economy, its expenditure supported a further €3.7 million along its supply chain and through the payment of wages.

We find that the expenditure undertaken by **the show’s production stimulated a total of 700 full-time and part-time jobs across Germany.** For every 100 people the production directly employed, its expenditure stimulated another 70 jobs across the country.

## €31.3m

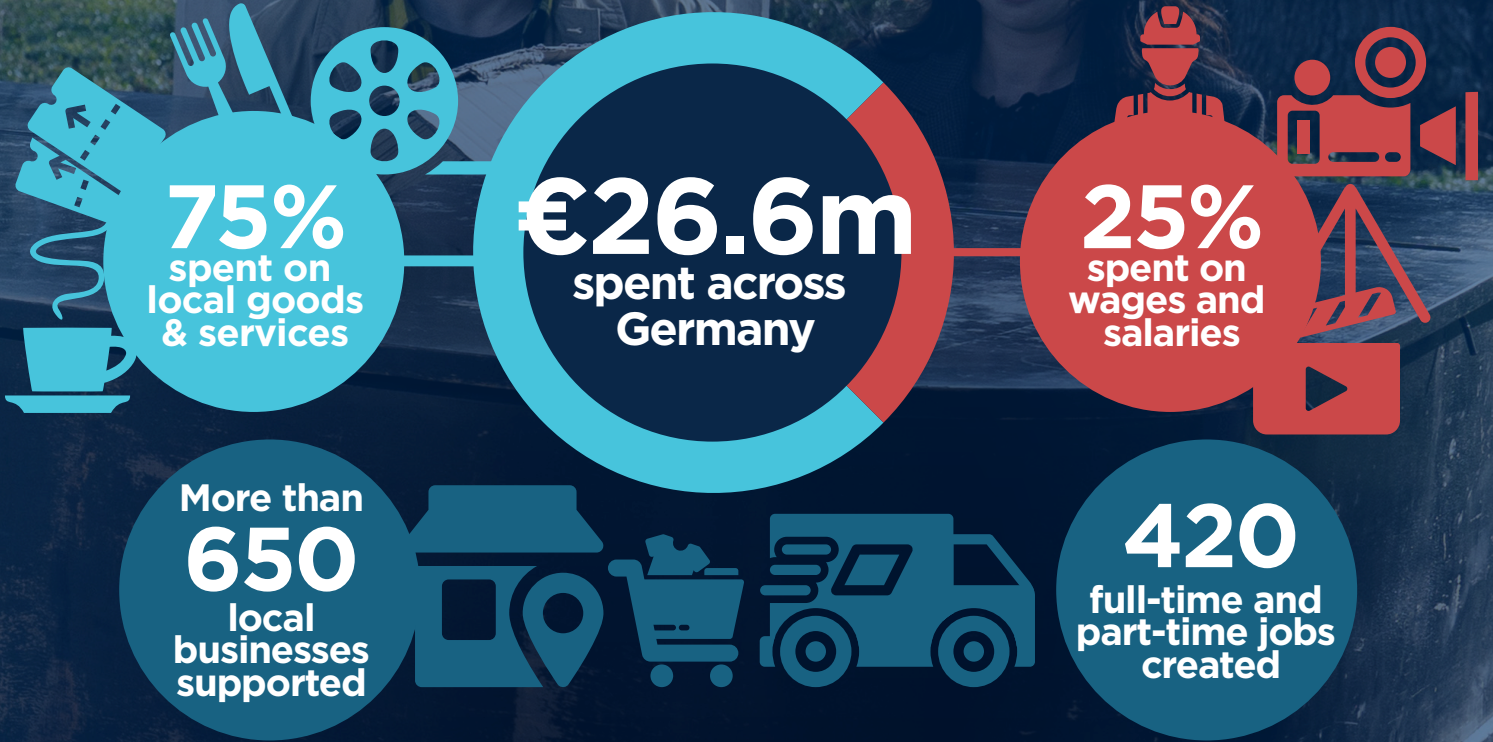
Total contribution to Germany’s GDP supported by Season One of *“Pitch Perfect: Bumper in Berlin”*

## 700

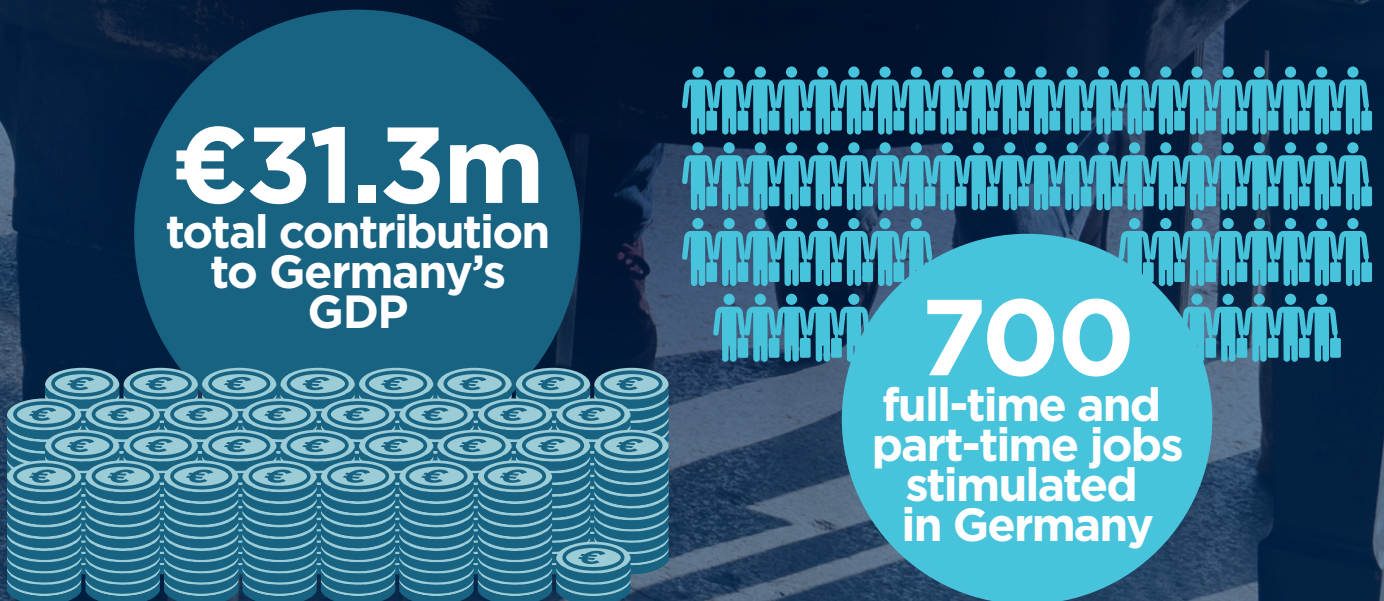
Full-time and part-time jobs supported across Germany as a result of *“Pitch Perfect: Bumper in Berlin”*

# THE ECONOMIC IMPACT OF *PITCH PERFECT: BUMPER IN BERLIN*

## DIRECT IMPACT OF PRODUCTION



## TOTAL IMPACT OF PRODUCTION



# 1. INTRODUCTION

*“Pitch Perfect: Bumper in Berlin”* is a TV series produced by NBCUniversal based on the movie series “Pitch Perfect”. The comedy series chronicles the adventures of Bumper Allen, who moves to Berlin to revitalise his music career after landing a big hit in the city. However, after moving to Germany, Bumper faces unexpected challenges and a tough competition. The first season of *“Pitch Perfect: Bumper in Berlin”* was filmed in 2022 in Berlin and Brandenburg, Germany, and premiered in November 2022.

Oxford Economics was engaged by the Motion Picture Association (MPA) to conduct an independent economic impact assessment of the production of the first season of the show on Germany’s economy. For the study, Oxford Economics used data from NBCUniversal to estimate the economic impacts arising from the production of this season.



DATE  
MARCH  
22ND  
2022

03:26:33.02

LENS  
135mm

ROLL	SCENE	TAKE
A 039	211A	3

DIRECTOR: TODD STRAUSS-SCHULSON

CAMERA: MIKE SPRAGG B.S.C.





## 2. PRODUCTION SPENDING

When a TV show shoots on location, it brings with it jobs, revenue, and related infrastructure development. Physical productions provide an immediate boost to the local economy, fostering job creation and innovation in other industries across the production supply chain. In 2022, production of Season One of *“Pitch Perfect: Bumper in Berlin”* resulted in **total spending in Germany of nearly €26.6 million.**

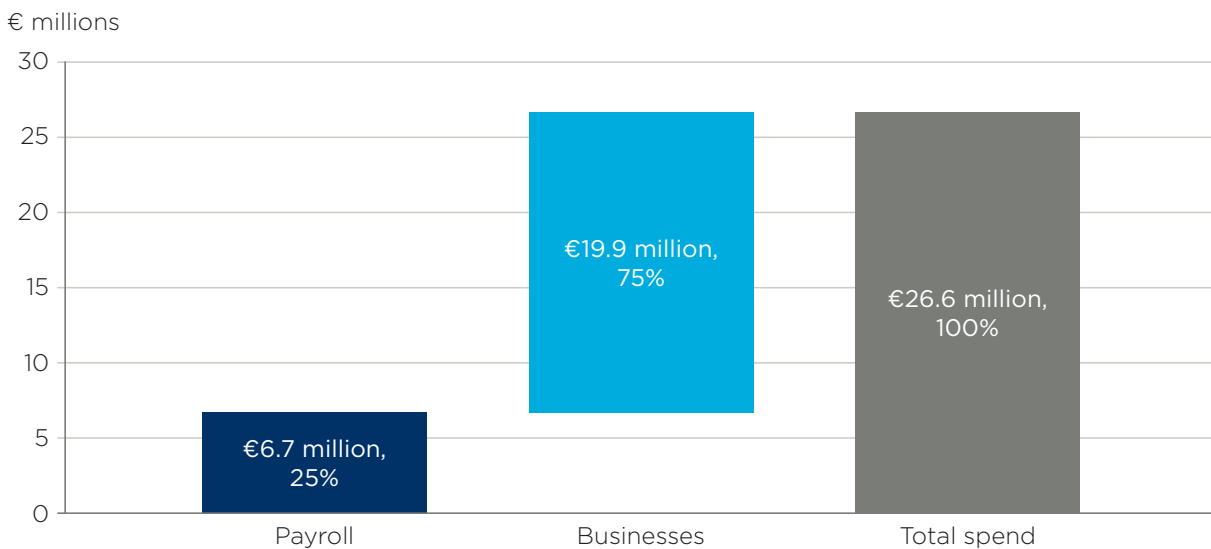
Spending on wages and salaries for local production crew and other labour made up slightly over a quarter of the expenditure at approximately €6.7 million (see Fig. 1). The other three quarters of spending were with local suppliers of goods and services at approximately €19.9 million.

**€26.6m**  
**Direct production expenditure in Germany**

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*Spending on production crew and qualifying labour was €6.7 million while spending with local vendors on goods and services was €19.9 million.*

**Fig. 1: Production spend of Season One of “Pitch Perfect: Bumper in Berlin” in Germany, by type**



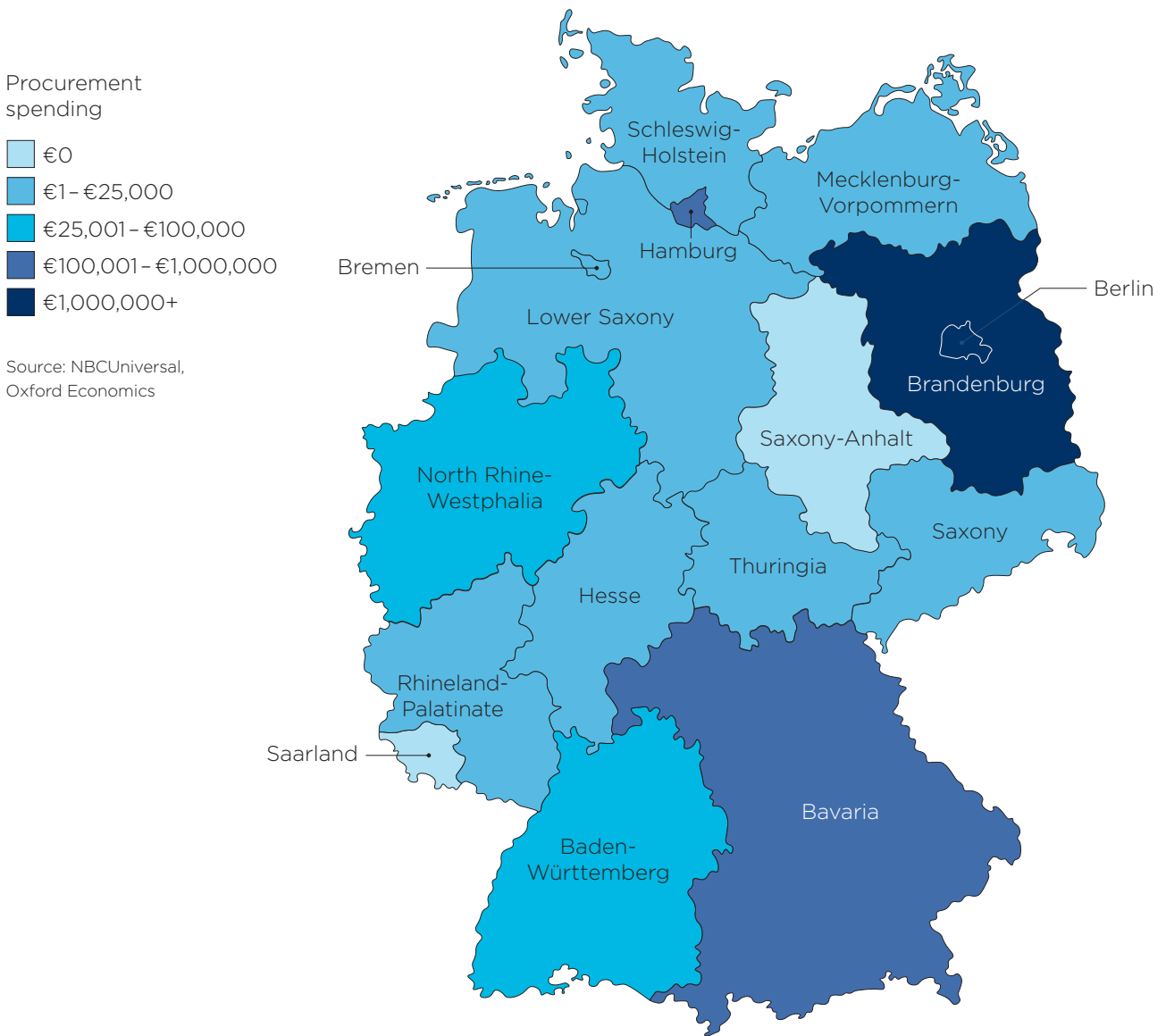
Source: NBCUniversal, Oxford Economics

## 2.1 BUSINESS SPENDING

Season One production spending engaged more than 650 businesses in 14 out of 16 federal states in Germany. The federal states that received

the largest amounts in business spending were Berlin and Brandenburg, which together made up over 90% of all business spending. The distribution of spending across the country is shown in Fig. 2 below.

**Fig. 2: Map of spending with German businesses by federal state**



The production of TV shows typically relies on a wide range of goods and services, engaging multiple local businesses across numerous industries (see Fig. 3). The largest category of spending (or 31% of the total) was in editing activities. The next

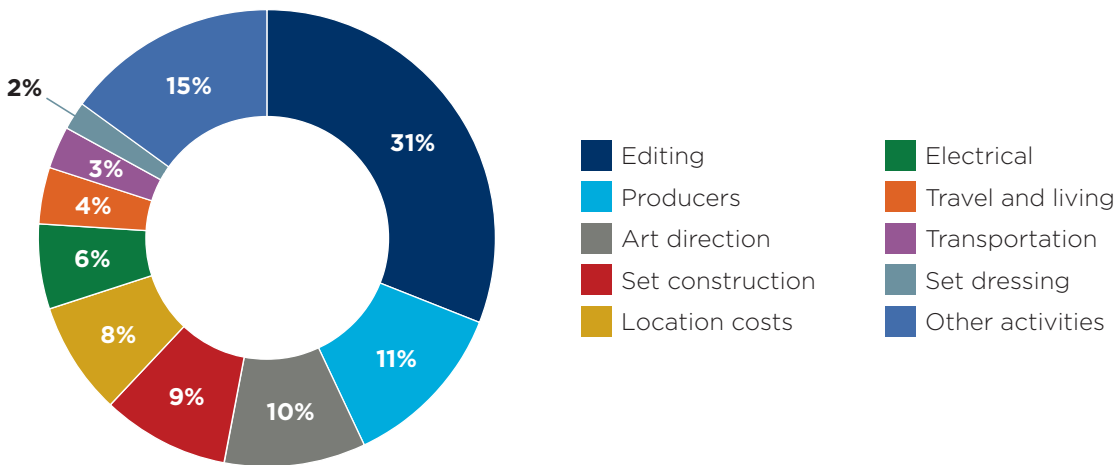
largest category of spending, or 11% of the total, went towards producers. Another 10% was spent on art direction.

While the majority of spending occurred in Berlin and Brandenburg (primarily Potsdam), there was a wide

distribution of spending that engaged vendors all over the country. Spending was distributed across other states too: procurement in Lower Saxony included textiles, for example, and artists from Bremen were hired for set construction.

**Fig. 3: Spend on goods and services in Germany, by industry**

% spend with German suppliers



Source: NBCUniversal, Oxford Economics



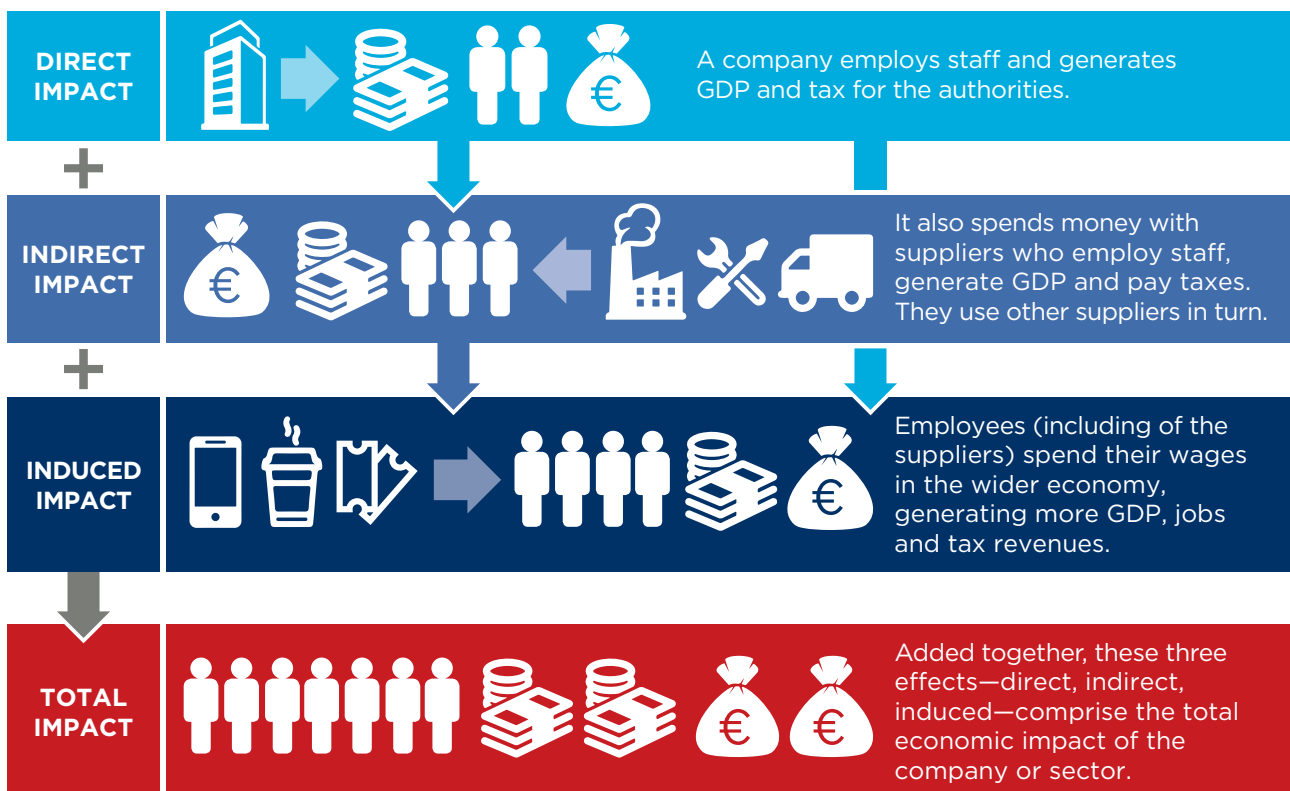
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# 3. ECONOMIC IMPACTS

## 3.1 CHANNELS OF IMPACT

The impact of the filming of *“Pitch Perfect: Bumper in Berlin”* on Germany’s economy is calculated using an economic

impact assessment. This involves quantifying the production’s economic contribution across three channels of expenditure, where the total impact is the sum of the three channels.



Source: Oxford Economics

**€31.3m**

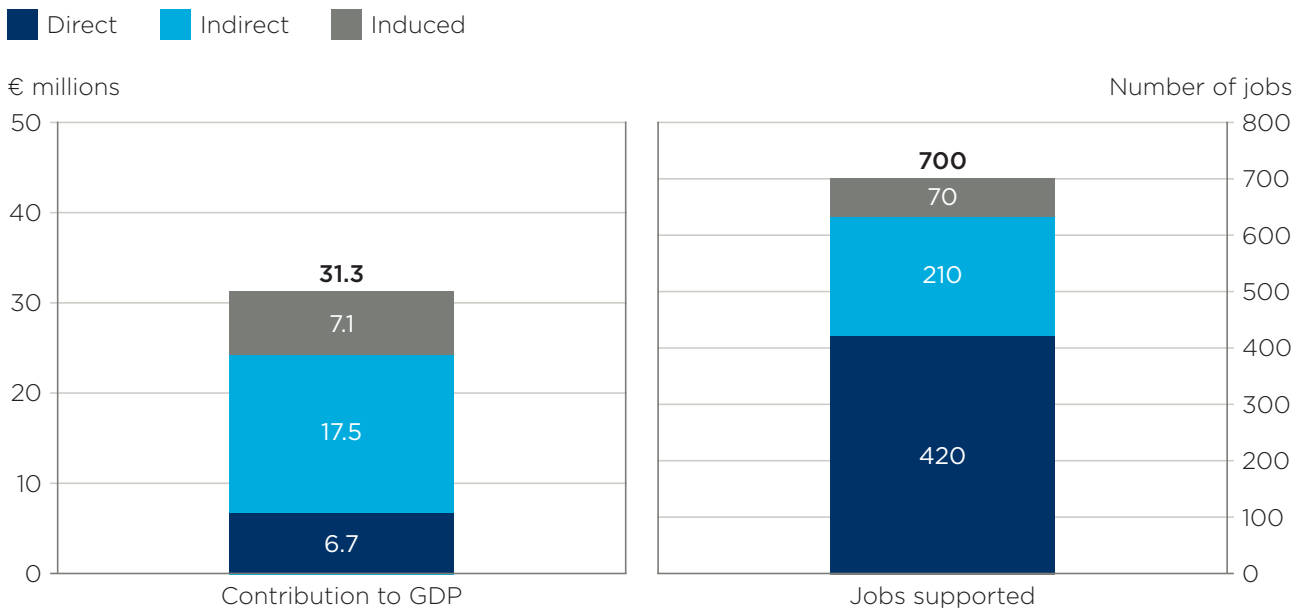
Total contribution to Germany's GDP supported by *"Pitch Perfect: Bumper in Berlin"*

### 3.2 TOTAL IMPACT

Combining all channels of impact, we find that *"Pitch Perfect: Bumper in Berlin"* supported over €31.3 million towards Germany's GDP in 2022. Approximately €6.7 million, or 21%, of this was generated by the production itself (direct).

The local spending on goods and services supported another €17.5 million along the supply chain (indirect), which represented 56% of the total.<sup>1</sup> The payment of wages by the production studios and local vendors in the show's supply chain (induced) stimulated another €7.1 million of GDP, or 23% of the total (Fig. 4).

**Fig. 4: The total GDP and employment contribution supported by *"Pitch Perfect: Bumper in Berlin"* in Germany, by channel of impact**



Source: Oxford Economics

<sup>1</sup> While production spending with Germany based vendors totals approximately €19.9 million, these local vendors may spend some part of this with companies outside of Germany, resulting in an estimated impact of €17.5 million.

For *“Pitch Perfect: Bumper in Berlin,”* for every €1 million in direct GDP generated by the production’s own activities, its expenditure supported a further €3.7 million across Germany.<sup>2</sup>

The production of the show also had a significant impact on employment in the country. In 2022, the production of *“Pitch Perfect: Bumper in Berlin”* supported approximately 700 full-time and part-time workers across the country. The TV series production itself employed an estimated 420 full-time and part-time workers, or 60% of the total. The local spending on goods and services supported another 210 full-time and part-time workers along the national supply chain or 30% of the

total. A further 70 full-time and part-time jobs, or 10% of the total, were supported by the spending of wages across the country by production crews and by employees of the show’s suppliers.

In 2022, for every 100 people the production directly employed, a further 70 jobs were supported across the country through secondary effects.<sup>3</sup>

*“Pitch Perfect: Bumper in Berlin”* is estimated to have benefitted from €8 million in tax incentives.<sup>4</sup> These incentives are estimated to have produced €3.9 in GDP for every Euro of tax incentive received by the production.

The remainder of this section describes the three channels of impact in more detail.

# 700

**Full-time and part-time jobs supported across Germany as a result of *“Pitch Perfect: Bumper in Berlin”***

<sup>2</sup> This GDP multiplier effect is calculated by dividing the total impact (€31.3 million) by the direct impact (€6.7 million) and subtracting 1.

<sup>3</sup> This employment multiplier effect is calculated by dividing the total employment impact (700) by the direct employment impact (420) and subtracting 1.

<sup>4</sup> German Motion Picture Fund (GMPF) – FFA Filmförderungsanstalt.

### 3.3 DIRECT IMPACT

During the production period, *“Pitch Perfect: Bumper in Berlin”* directly employed an estimated 420 full-time and part-time workers across Germany.

We estimate that the production made a €6.7 million direct contribution to the country’s GDP in 2022, which came from the payment of employee compensation to locally based staff.<sup>5</sup>

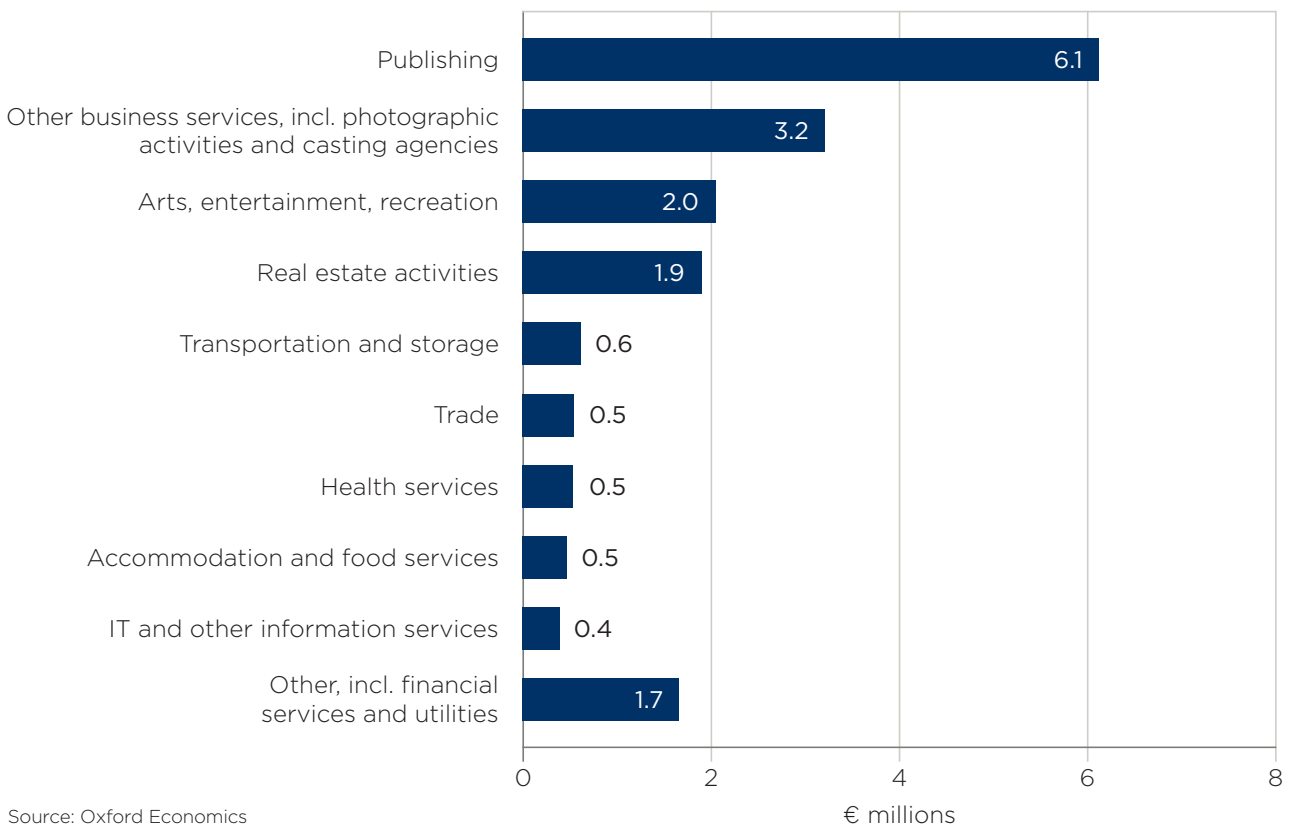
### 3.4 INDIRECT IMPACT

The production’s positive contribution to Germany’s economy, however, extends past the contribution it makes directly through its own operations. This is related to the purchases of goods and services made from other firms in order to produce the show. This spending stimulates additional economic activity along the supply chain. This is referred to as the *indirect* impact.

Oxford Economics calculated that the procurement associated with *“Pitch Perfect: Bumper in Berlin”* stimulated a €17.5 million contribution to the country’s GDP along the domestic supply chain.

Almost 35% of this indirect impact was in publishing, broadcasting, and audiovisual activities, where the show’s supply chain stimulated a GDP contribution of €6.1 million (Fig. 5). Approximately 18% of the indirect impact

**Fig. 5: GDP contribution stimulated by the procurement of goods and services from local suppliers, by industry**



Source: Oxford Economics

<sup>5</sup> The contribution to GDP generated by a company or a project can be calculated as the sum of its surplus (profits) and employee compensation. This approach, known as the income approach, is consistent with the principles of national accounting. For the purposes of this study, we take a conservative approach to this calculation and focus on the employee compensation of local workers, excluding the profits associated with the production in our calculation of direct contribution to Germany’s GDP.



(€3.2 million) went towards other business sector services, while 12% of the impact (€2.0 million) went towards the arts, entertainment, and recreation industry.

The show’s expenditure on inputs of goods and services from locally based suppliers also stimulated 210 full-time and part-time jobs across Germany.

**3.5 INDUCED IMPACT**

During the production period, local labour was paid

€6.7 million in gross wages and salaries. In addition to this, the people whose jobs are stimulated by local spending on goods and services are also paid additional wages and salaries.

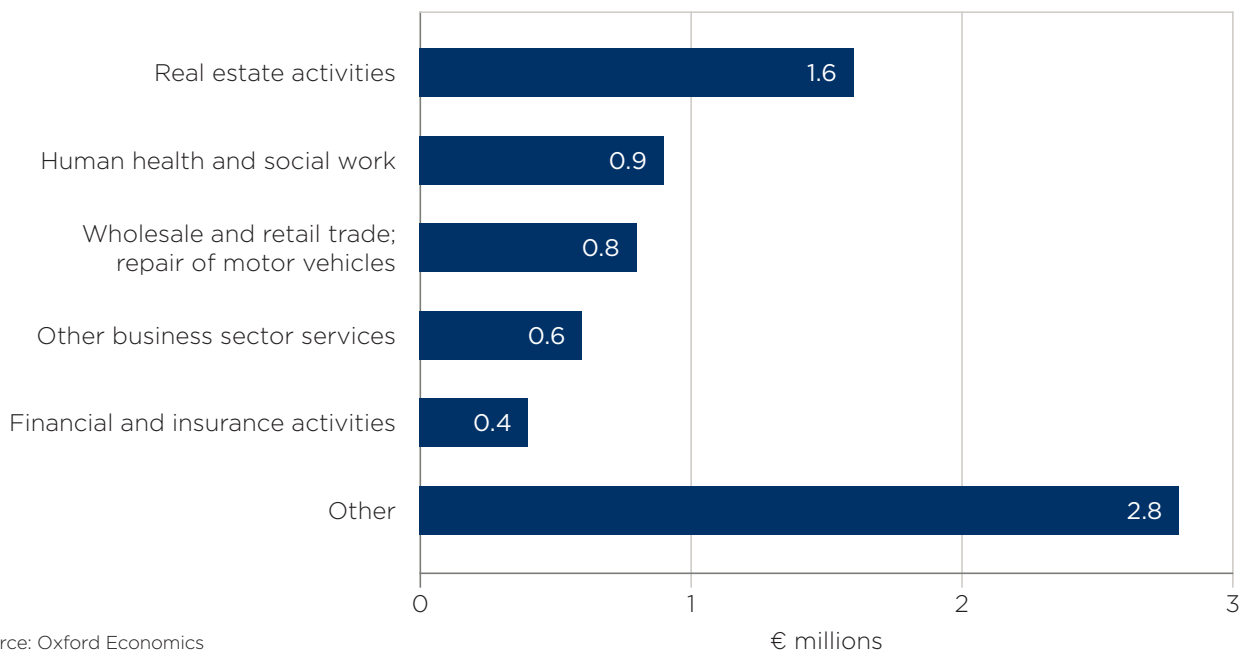
Production crews, and workers employed throughout the supply chain, spend a proportion of their wages at retail, leisure, and other outlets across the country. This stimulates economic activity and employment at these firms, but also along their supply chains. This is

referred to as the show’s *induced* impact.

We estimate the wage-financed spending of local production crews and workers at locally based suppliers stimulated €7.1 million towards Germany’s GDP during the production period (Fig. 6).

The wage-financed consumer spending of production crews and workers within the show’s supply chain is estimated to have supported 70 full-time and part-time jobs across Germany in 2022.

**Fig. 6: GDP contribution stimulated by the payment of wages to Germany-based workers, by industry**



Source: Oxford Economics



## 4. WIDER IMPACTS

TV series such as *“Pitch Perfect: Bumper in Berlin”* generally produce benefits to the region of production that go beyond their contribution to GDP and employment. Although these wider impacts have not been quantified in this study, these community, and social benefits should not be neglected. Thus, they are briefly discussed in the following section.

### 4.1 PROMOTING BERLIN AS A SHOOTING HUB

Berlin and Brandenburg have become increasingly popular as shooting locations in recent years. International productions, such as *“Pitch Perfect: Bumper in Berlin”* may reinforce and accelerate this trend by establishing the region as a shooting hub further—especially internationally. Productions such as *“Pitch Perfect: Bumper in Berlin”* also help to attract government funding. For instance, Berlin’s state government has recently provided a cash injection of €15 million to the Medienboard Berlin-Brandenburg to boost

investments in film and TV productions and fund the creation of new offices to administer permits.<sup>6</sup> Another example is that the Berlin Senate aims to provide €1.7 million to create a central point of contact for productions. These financial resources may help to trigger additional investments in the region, further elevating its status as a filming location and attracting even more productions.

### 4.2 FILM-INDUCED TOURISM

Another positive impact that is not captured by the economic impact analysis is an increase in tourism that could be caused by the TV series. Fans of the series may become aware of the production locations around Berlin and the surrounding area and plan to visit the sites. Fans outside of Europe may become interested in visiting Germany in general. Film-induced tourism is a well-known phenomenon, and it has increasingly been viewed as an important component of tourism marketing.<sup>7</sup> This was

also confirmed by Franziska Giffey, then governing mayor of Berlin who stated: “Every film and every series made here are great promotion for our city. We want Berlin to become even more film-friendly in the future.”<sup>8</sup>

### 4.3 PERSONAL SPENDING FROM CAST AND CREW

A TV production such as *“Pitch Perfect: Bumper in Berlin”* brings non-resident workers to a region or a city. This may be particularly true for the TV series as most of the cast was not German.<sup>9</sup> While this is not counted as part of the economic footprint of the show, it is important to acknowledge that this could support further economic impacts. For instance, non-resident workers may spend part of their compensation locally to visit local attractions or leisure outlets in their spare time. They may even receive visits from friends and relatives while in the region, thereby supporting further economic activity.

<sup>6</sup> Screendaily, Berlin region receives €15m funding boost amid shooting boom, July 2022.

<sup>7</sup> See for example, Jeeyeon (Jeannie) Hahm & Youcheng Wang (2011) Film-Induced Tourism as a Vehicle For Destination Marketing: Is it Worth the Efforts?, *Journal of Travel & Tourism Marketing*, 28:2, 165-179 or Beeton, Sue. “Understanding film-induced tourism.” *Tourism analysis* 11, no. 3 (2006): 181-188.

<sup>8</sup> Screendaily, Berlin region receives €15m funding boost amid shooting boom, July 2022.

<sup>9</sup> IMDB, *Pitch Perfect: Bumper in Berlin*.



# APPENDIX: METHODOLOGY

The impact of the filming of *“Pitch Perfect: Bumper in Berlin”* on Germany’s economy is calculated using an economic impact assessment. This involves quantifying the production’s economic contribution to the country across three channels of expenditure. The channels of impact are:

- **Direct impact** relates to the employment and economic activity generated at the filming locations across Germany.
- **Indirect impact** captures the economic activity stimulated by the procurement of inputs of goods and services from the locally based supply chain.
- **Induced impact** comprises the wider economic benefits that arise from the payment of wages by the television series, and the firms in its local supply chains, to staff who spend a proportion of this income in local retail, leisure, and other outlets.

The total impact is the sum of the three channels. This enables us to build a picture of the series’ overall contribution to the country across two key metrics:

- The gross value-added contribution to Germany’s GDP.<sup>10</sup>
- Employment measured by headcount (includes full-time and part-time workers).

The results are presented on a gross basis, ignoring any displacement of activity from other firms or activities. Additionally, the results do not consider what the resources currently used by the show’s production, or stimulated by its expenditure, could alternatively produce in their second most productive usage.

Data on the direct impact of *“Pitch Perfect: Bumper in Berlin”*—including the show’s contribution to GDP and jobs created—were provided directly by NBCUniversal. Direct GDP contribution in the region is taken to be equal to local employee compensation.

To estimate the indirect and induced GDP impacts of the show, we used Oxford Economics’ proprietary input-output model, constructed using a variety of sources including OECD input-output (IO) tables, national account data, and local employment statistics.

A basic domestic IO table gives a snapshot of an economy at a given point in time. The model shows the major spending flows from “final demand” (i.e., consumer spending, government spending, investment, and exports to the rest of the world); intermediate spending patterns (i.e., what each sector buys from every other sector—the supply chain in other words); how much of that spending stays within the national economy; and the distribution of income between employment income and other income (mainly profits). In essence, an IO table shows who buys what from whom in the economy.

To estimate the indirect impact, we used vendor-level information on the amount spent and type of goods and services purchased from businesses based in the country over the course of the show’s production. To calculate the induced impact, we took the wages paid to workers, as provided by NBCUniversal, and then allocated those to the sectors where they would have spent those wages in line with the proportions in the national IO table. We then used those figures to show how many Euros of GDP the show’s production supported in the national economy for every €1 of direct GDP contribution, and how many jobs were stimulated across the country for each 100 people directly employed by the production.

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<sup>10</sup>GDP is the main indicator of economic activity in Germany. It is used to measure the rate of growth or decline of the economy, and when it enters a recession.

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## February 2024

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To discuss the report further please contact:

### **Arushi Pasricha**

[apasricha@oxfordeconomics.com](mailto:apasricha@oxfordeconomics.com)

### **Hannah Zick**

[hmzick@oxfordeconomics.com](mailto:hmzick@oxfordeconomics.com)

Oxford Economics  
5 Hanover Sq, 8th Floor  
New York, NY 10004

**Tel:** +1 646-786-1879



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OXFORD  
ECONOMICS

#### **Global headquarters**

Oxford Economics Ltd  
Abbey House  
121 St Aldates  
Oxford, OX1 1HB  
UK  
**Tel:** +44 (0)1865 268900

#### **London**

4 Millbank  
London, SW1P 3JA  
UK  
**Tel:** +44 (0)203 910 8000

#### **Frankfurt**

Marienstr. 15  
60329 Frankfurt am Main  
Germany  
**Tel:** +49 69 96 758 658

#### **New York**

5 Hanover Square, 8th Floor  
New York, NY 10004  
USA  
**Tel:** +1 (646) 786 1879

#### **Singapore**

6 Battery Road  
#38-05  
Singapore 049909  
**Tel:** +65 6850 0110

#### **Europe, Middle East and Africa**

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Singapore  
Hong Kong  
Tokyo  
Sydney

#### **Email:**

[mailbox@oxfordeconomics.com](mailto:mailbox@oxfordeconomics.com)

#### **Website:**

[www.oxfordeconomics.com](http://www.oxfordeconomics.com)

#### **Further contact details:**

[www.oxfordeconomics.com/  
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