

1 INTRODUCTION

1.1 Overview

The role of population trends in human welfare has been the subject of long-standing debate. When the modern expansion of the human population began in the late 18th century, Thomas Malthus argued that unrestrained population growth would be limited by constraints on food production. Instead, world population has expanded much more rapidly than Malthus envisioned, growing from 1 to 6 billion over the past two centuries. Only very recently growth approached or actually reached zero in much of the industrial world and has rapid population growth begun to wind down in developing countries.

One of the main reasons for the renewed public interest in population forecasts is that in the most recent projections, estimates of population size for the next century were revised downward by a significant amount. The United Nations (U.N.) and the World Bank still predict that world population will grow from 6 billion today to nearly 9 billion by the year 2050. However, this growth is smaller than had earlier been anticipated and incorporates the prospect of actual population decline in some parts of the world, particularly Europe and Japan.

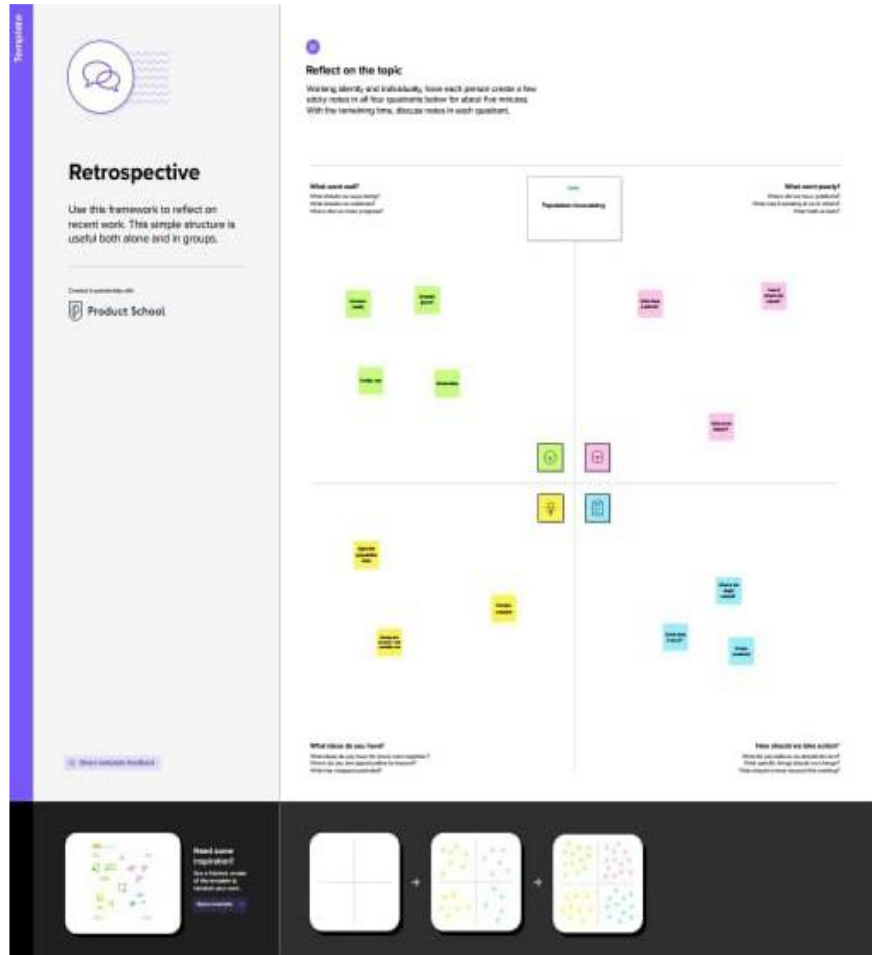
1.2 Purpose

Review existing population projections for their accuracy; describe, as far as possible, the uncertainty that surrounds these forecasts; and, when appropriate, recommend changes or variances in the assumptions and statistical methods used to make population projections.

2 Problem Definition & Design Thinking

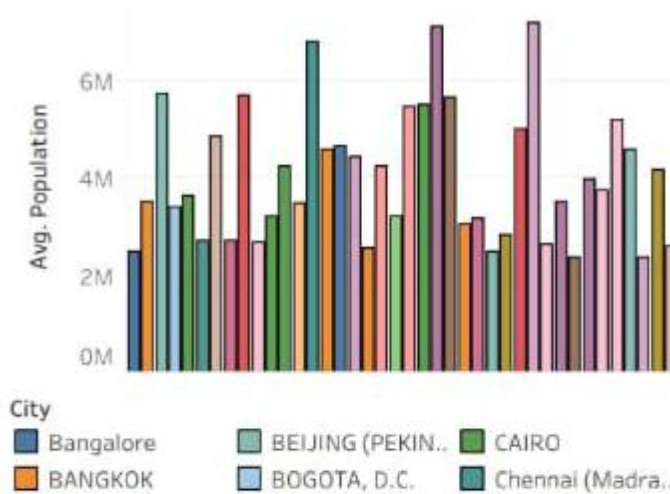
2.1 Empathy Map

2.2

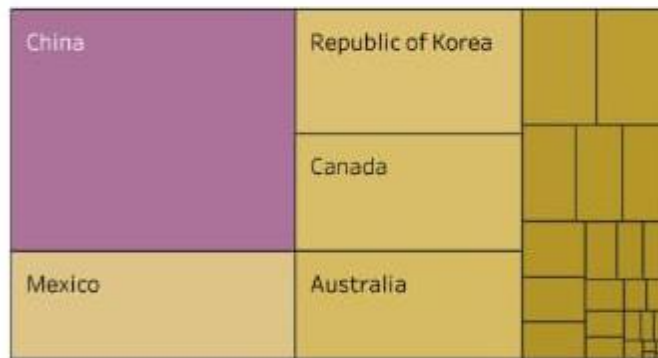


3 RESULT

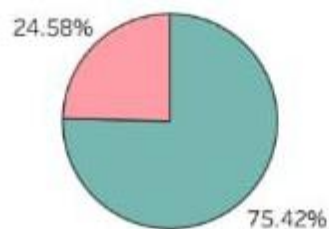
Cities with highest average population



Countries by highest avg population from 2000-2014



Population by city type



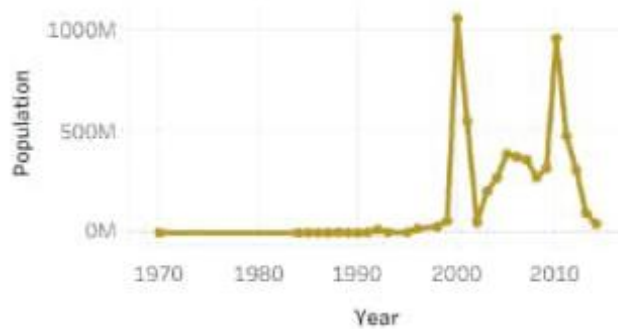
Record types of countries



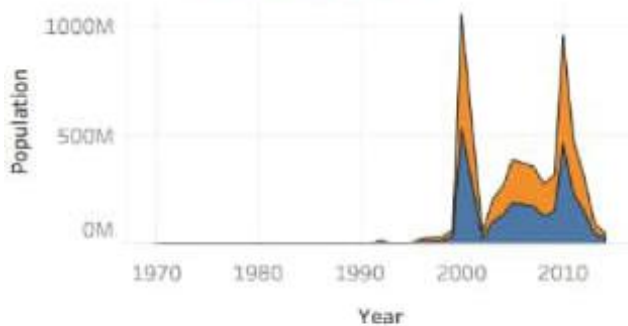
Record Type

- Census - de fact..
- Estimate - de ju..
- Census - de jure ..
- Record type not..
- Census - de jure ..
- Sample survey -..
- Estimate - de fa..
- Sample survey -..

Population trends over the years



Population trends over the years by sex



Sex

- Female
- Male

4 ADVANTAGES AND DISADVANTAGES

Advantages

1. More people leads to greater human capital. The past 200 years have shown exponential growth in technical development innovation.

2. Higher economic growth. Population growth will lead to economic growth with more people able to produce more goods.

3. Economies of scale. Technological innovation and economies of scale, mean productivity of land as farmers make use of mechanization and economies of scale for increased food production.

4. The efficiency of higher population density. When people live in densely populated areas, they are more likely to use public transport, live in apartment buildings which are easier to heat.

5. The improved demographic structure of society. Moderate population growth helps to rebalance the population with a higher share of young, working people.

6. Critical mass. When the population grows, it can enable the support of a broader cultural range of activities.

Disadvantages

1. Cost to the environment. Trying to reduce carbon and methane emissions to reduce global warming is relatively more difficult as the population.
2. Congestion. Too many people in a small space will lead to various types of congestion.
3. Water shortages. Already up to 40% of the world's population face water scarcity and the risk of drought.
4. Generating unsustainable waste. we are currently generating non-biodegradable rubbish that we are struggling to process.
5. A population will put pressure on scarce water supplies and this is a factor behind many minor and major conflicts with around the shortage of water.

5 APPLICATION

This section highlights selected areas of application of population projections with a focus on Germany.

The case of Germany is relevant as its demographic outlook changed in recent years.

For example, the freedom of movement for workers in the EU since 2011 or a significant increase in births resulted in population growth.

Population projections serve as a quantitative basis for a variety of different applications and actors.

Population projections thus form an important basis for many thematic fields. In this section, particularly relevant exemplary applications are highlighted, with no claim of completeness.

6 CONCLUSION

A critical attitude is particularly necessary when applying the results of population projections and population forecasts in practice. Models or assumptions that use past developments as basis do not necessarily have to remain valid in the future. At the regional level, for example, population growth does not depend exclusively on demographic trends but also on whether the available infrastructure will in principle enable growth. It remains to be seen, for example, whether a housing market under consideration will be able to translate the construction demand resulting from population growth into new housing in the future.

7 FUTURE SCOPE

Our contribution has shown the need for information on the future demographic structure generated by population projections as a quantitative basis for political and economic decisions. However, the results of forecasts should not be taken as an absolute truth, as statements about future developments are subject to uncertainty trends. In principle, deterministic and stochastic methods are available for operationalizing the forecast uncertainty. Both approaches have advantages and disadvantages; accordingly, there is no “one correct approach”. However, we gave insight into the broad limitations associated with the common deterministic approaches.

8 Appendix

```
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<html lang="en"></html>

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  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <!-- Tell the browser to be responsive to screen width -->
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  <meta name="keywords"
    content="wrappixel, admin dashboard, html css dashboard, web dashboard,
    bootstrap 5 admin, bootstrap 5, css3 dashboard, bootstrap 5 dashboard, Ample
```

```

lite admin bootstrap 5 dashboard, frontend, responsive bootstrap 5 admin
template, Ample admin lite dashboard bootstrap 5 dashboard template">
    <meta name="description"
        content="Ample Admin Lite is powerful and clean admin dashboard
template, inspired from Bootstrap Framework">
    <meta name="robots" content="noindex,nofollow">
    <title>Ample Template by WrapPixel</title>
    <link rel="canonical" href="https://www.wrappixel.com/templates/ample-admin-
lite/" />
    <!-- Favicon icon -->
    <link rel="icon" type="image/png" sizes="16x16"
href="plugins/images/favicon.png">
    <!-- Custom CSS -->
    <link href="https://wrappixel.com/demos/free-admin-templates/all-lite-
landing-pages/dist/css/style.css"
        rel="stylesheet">
    <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media
queries -->
    <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
    <!--[if lt IE 9]>
    <script
src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
    <script
src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
<![endif]-->
</head>

<body>
    <!-- ===== -->
    <!-- Main wrapper -->
    <!-- ===== -->
    <div id="main-wrapper">
        <!-- ===== -->
        <!-- Header part -->
        <!-- ===== -->
        <header class="py-3 bg-white">
            <div class="container">
                <!-- Start Header -->
                <div class="header">
                    <nav class="navbar navbar-expand-md navbar-light px-0">
                        <a class="navbar-brand" href="#">
                            
                            <span>
                                

```



```
        </span>
      </a>
      <button class="navbar-toggler" type="button" data-
toggle="collapse"
        data-target="#navbarSupportedContent" aria-
controls="navbarSupportedContent"
        aria-expanded="false" aria-label="Toggle
navigation">
        <span class="navbar-toggler-icon"></span>
      </button>
      <div class="collapse navbar-collapse"
id="navbarSupportedContent">
        <ul class="navbar-nav ml-auto">
          <li class="nav-item pr-3">
            <a
href="https://wrappixel.com/templates/ample-admin-lite/"
            class="btn btn-custom btn-outline-info
btn-lg" target="_blank">Free Download</a>
          </li>
          <li class="nav-item">
            <a
href="https://www.wrappixel.com/templates/ampleadmin/?ref=33"
            class="btn btn-custom btn-info btn-lg"
target="_blank">Check Pro Version</a>
          </li>
        </ul>
      </div>
    </nav>
  </div>
  <!-- End Header -->
</div>
</header>
<!-- ===== -->
<!-- Header part -->
<!-- ===== -->

<!-- ===== -->
<!-- Page wrapper part -->
<!-- ===== -->
<div class="content-wrapper">
  <!-- =====
-->

  <!-- Demos part -->
  <!-- =====
-->

  <section class="spacer bg-light">
    <div class="container">
      <div class="row justify-content-md-center pt-5">
        <div class="col-md-9 text-center">
```

```

        <h2 class="text-dark">Create Userfriendly Interface
for your <span
        class="fw-bold">Applications</span> & <span
        class="fw-bold">Products</span> with <span
        class="border-bottom border-dark"> Ample
Admin</span></h2>
        </div>
    </div>
    <div class="row py-5">
        <!--
===== -->
        <!-- Lite Demo -->
        <!--
===== -->
        <div class="col-md-6">
            <div class="card p-2 me-1">
                <div class="card-body p-4">
                    <div class="text-center">
                        <h2 class="text-dark font-weight-
medium">Lite Version</h2>
                        <h4 class="text-success">Free
Forever</h4>
                    </div>
                    <div class="live-box text-center mt-4">
                        
                        <div class="overlay">
                            <a class="btn btn-danger live-btn"
                            href="https://wrappixel.com/demo
s/admin-templates/ampleadmin/ample-admin-lite/dashboard.html"
                            target="_blank">Live Preview</a>
                        </div>
                    </div>
                    <p class="text-muted mt-5 line-h33 font-
16">Ample Admin Lite is basic yet very
                        useful bootstrap 5 dashbaord template
for your projects.If you are looking for
                        modern yet clean admin template for your
backend project. Ample Admin is the
                        right choice for you. If your
application requires more options. We like to
                        suggest you the pro version.</p>
                    <div class="row text-muted mt-4">
                        <div class="col-md-6">
                            <ul class="list-unstyled listing">

```

```

</li>1
Basic Dashboard</li>
</li>7+ Pages Template</li>
</li>10+ UI Components</li>
</li>Bootstrap 5 Version</li>
</li>Font Awesome Icons</li>
</li>Fully Responsive Pages</li>
<li class="text-dark">No Support Provided</li>
</ul>
</div>
<div class="col-md-6">
<ul class="list-unstyled listing">
<li>SCSS Base CSS</li>
</li>Easy To Customize</li>
<li>Basic Table Examples</li>
<li>Profile Page Included</li>
<li>Google Map</li>
<li class="text-dark ">No Documentation</li>
<li class="text-dark">Backlink Required</li>
</ul>
</div>
<div class="text-center mt-4 mb-3">
<a
href="https://wrappixel.com/templates/ample-admin-lite/"
class="btn btn-custom btn-outline-
info btn-lg" target="_blank">Free
Download</a>
</div>
</div>
</div>
</div>
<!--
===== -->
<!-- Pro Demo -->
<!--
===== -->
<div class="col-md-6">
<div class="card pro-demo p-2 ms-1">

```

```

<div class="card-body p-4">
  <div class="text-center">
    <h2 class="text-info font-weight-
medium">Pro Version</h2>

    <h4 class="text-dark">$39 Only</h4>
  </div>
  <div class="live-box text-center mt-4">
    
    <div class="overlay">
      <a class="btn btn-danger live-btn"
href="https://wrappixel.com/ampleadmin/"

      target="_blank">Live Preview</a>
    </div>
  </div>
  <div class="row text-dark mt-5">
    <div class="col-md-6">
      <ul class="list-unstyled listing">
        <li>3+ Stunning Dashboards</li>

        <li>600+ Page Templates</li>

        <li>500+ UI Components</li>

        <li>100+ Integrated Plugins</li>

        <li>Front-end Landing Page</li>

        <li>6
Months Premium Support</li>
<li>Right-to-Left(RTL) Verion</li>
<li>Unlimited Colors</li>
<li>3000+ Font Icons</li>
<li>Lots of Chart Options</li>
<li>Bootstrap 5 Version</li>
<li>Fully Responsive Pages</li>
</ul>
</div>
<div class="col-md-6">
<ul class="list-unstyled listing">
<li>7+ Unique Demos</li>
<li>3+ Ready to Use App</li>
<li>Light and Dark Sidebar</li>
<li>Dashboard PSD Files</li>
<li>Documentation Provided</li>
<li>Lots of Widgets</li>
<li>Tons of Table Example</li>
<li>Variety of Forms Included</li>
<li>SCSS Base CSS</li>
<li>Easy to Customize</li>
<li>&
lots more..</li>
</ul>
</div>
</div>
<div class="text-center mt-4 mb-3">
<a
href="https://www.wrappixel.com/templates/ampleadmin/?ref=33"

```

```

        class="btn btn-custom btn-info btn-
lg" target="_blank">Buy Pro Version</a>
    </div>
</div>
</div>
</div>
</div>
</div>
</section>
</div>
<!-- ===== -->
<!-- End page wrapperHeader part -->
<!-- ===== -->

</div>
</body>
<!-- ===== -->
<!-- All JQuery -->
<!-- ===== -->
<script
src="https://wrappixel.com/demos/free-admin-templates/all-lite-landing-
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<!-- Bootstrap tether Core JavaScript -->
<script src="bootstrap/dist/js/bootstrap.bundle.min.js"></script>

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```



```

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/></a></noscript><object class='tableauViz' style='display:none;'><param
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    var
scriptElement =
document.createElement('script');
    scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
    vizEl
ement.parentNode.insertBefore(scriptElement,
vizElement);
</script>

```