

TALENT MAGNETS:

CITIES AND UNIVERSITIES BUILDING THE
WORKFORCE FOR A KNOWLEDGE ECONOMY

BEST PRACTICES FOR TALENT ATTRACTION & RETENTION



World Class Cities Partnership

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THE WORLD CLASS CITIES PARTNERSHIP

Cities all over the world face a growing number of complex economic, social and environmental challenges. To address their challenges and take advantage of their opportunities, cities are developing new forms of collaboration.

Research partnerships between cities and local universities are a form of collaboration that offer major benefits for both: cities get quality, cost-effective research to help them devise solutions to their challenges; and by working on priority urban challenges, universities increase their value to their communities and funders, as well as the value of their offerings to students.

The World Class Cities Partnership (WCCP) is a network of selected cities engaged in fostering city-university research partnerships. It works to:

- compare the strategies and policies that these cities have developed to address similar urban challenges
- convene a diverse network of policy innovators from the private, public and non-profit sectors
- identify best practices in urban strategies
- identify best practices in developing city-university research partnerships

To accomplish our mission, the WCCP, headquartered at Northeastern University in Boston, Massachusetts, is building this network of corporate, governmental and academic partners. WCCP will be the catalyst for connecting an international cadre of municipal officials, university faculty and students, business leaders and policy innovators, all of whom share the same goal: to identify and share best practices on a range of urban issues and to analyze how they can be replicated in different political and economic environments. WCCP analyzes existing research and demographic data, social indicators, and other metrics to inform policy development and create social change.

WCCP MEMBERS



ASSOCIATE MEMBERS



LETTER FROM THE EXECUTIVE DIRECTOR



The World Class Cities Partnership (WCCP) is a unique international network that brings together municipal governments from around the world, together with their local universities, to create better outcomes for their communities. Cities are growing in influence and importance around the world, and very different cities have many challenges and opportunities in common. WCCP's vision is to link up city-university partnerships in different countries, identifying and sharing policies and programs that work best, and building bridges and relationships to better position each city in the global arena. We are a results-oriented, impact-focused collaborative with proven results.

Since our launch just over one year ago, we have linked together nine cities from around the world, initiated this global research project on talent, and hosted two international summits. We have facilitated cooperation agreements between Massachusetts, USA and Catalonia, Spain as well as between the Massachusetts and Lisbon port authorities. We have also organized international seminars and delegations, and helped create "Innovation Week" and "AwesomeBoston.org", two successful citizen-led organizations in Boston.

WCCP was launched in June 2011, with our first annual Summit in Boston. Over three days of discussions, our partner cities – each with a strong and growing network of knowledge-based industries – agreed that the attraction and retention of a college-educated workforce should be the first topic for collaborative research. WCCP partners convened again in June 2012 for a second Summit, where each city presented its research findings. This report summarizes those findings and outlines practical actions that local leaders can take to strengthen their talent pools.

We are working hard to capitalize on the success of our first year. We anticipate rich sharing of expertise through the development of joint graduate courses currently underway, and more extensive linkages through potential expansion of our network to cities in South America, Africa, and Asia. We are excited about many new partnership possibilities currently being explored, with community groups, businesses and public sector organizations.

Our success to date is due to the invaluable work, dedication, commitment and efforts of many individuals and organizations—too many to mention by name. The lead partners in the research and development of this report are acknowledged on the following page, for without their support this chapter in WCCP's evolution would never have been possible.

We hope this report will be of value to all our partner cities, as a guide to the most innovative talent retention and attraction practices within the WCCP network.

Respectfully,

A handwritten signature in blue ink that reads "Michael Lake". The signature is fluid and cursive, with a long horizontal stroke at the end.

*Michael Lake
WCCP Executive Director*



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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Section 1: Successful Talent Attraction and Retention Strategies	1
1.1 Early Student Integration.....	1
1.2 University/City Partnerships.....	2
1.3 Promote the Brand.....	2
1.4 Embrace Immigration.....	2
1.5 Quality of Life and Cost of Living.....	3

INTRODUCTION

Section 2 : Talent: A City’s Greatest Asset	4
--	---

THEMES AND FINDINGS

Section 3: Talent : Cases and Analysis	5
3.1 Availability of Jobs.....	5
3.2 Addressing the Skills Mismatch.....	6
3.3 Student Integretrion.....	7
3.4 Strategic Immigration Policies.....	10
3.5 Leveraging Lost Talent.....	11
3.6 The Importance of City Branding.....	12
3.7 Innovation Districts and Industry Clusters.....	14
3.8 Housing Affordability and Quality of Life: Shifting Prioiries.....	16

Methodology	19
--------------------------	----

Endnotes	20
-----------------------	----

Photo Credits	21
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Case Studies and Tables:

Table 1	Talent Rentention Rate in WCCP Cities.....	3
Table 2	Unemployment Rate in WCCP Cities and Countries.....	5
Case Study 1	Springboard Education Initiative, Dublin.....	6
Case Study 2	Cibernarium,Barcelona.....	7
Case Study 3	CityStudio, Vancouver.....	8
Case Study 4	Port Campus, Haifa.....	8
Case Study 5	Cooperative Education, Boston.....	9
Table 3	Boston Area University Rentention Rate.....	9
Table 4	Labor Force with University Attainment, by place of birth.....	10
Case Study 6	Linguistic Couples, Barcelona.....	11
Case Study 7	ConnectIreland, Dublin.....	12
Case Study 8	City Branding, Dublin.....	13
Case Study 9	HiCenter, Haifa.....	13
Case Study 10	Digital Creative City, Guadalajara.....	14
Case Study 11	22@ Barcelona.....	15
Case Study 12	Student Village, Haifa.....	16
Figure 1	Effective Strategies According to Life Stage.....	17

Executive Summary: Successful Talent Strategies

The World Class Cities Partnership's (WCCP) two most important findings from this year's research encompass all others. First, different cities, on different continents, with very different histories, nevertheless in this globalized world, face very similar challenges and are adopting similar strategies to deal with them. Second, one powerful strategy to address urban problems is city-university collaborations. Each WCCP city engages in this activity but such collaborations are still in their infancy, as demonstrated in our findings on talent attraction, retention, and city branding found in this report.

WCCP partners expected to find that universities could provide research capabilities to city governments, especially as cities face increased demand for information yet with fewer resources to do so. WCCP researchers also discovered that the scope for useful, practical city-university collaborations goes far beyond research. This report calls for cities and universities to work together on a variety of talent strategies that leverage the unique strengths of each.

A city's brand can serve as a beacon to catch the attention of talent from around the world, and the universities within a city serve as a magnet for temporarily attracting young talent. However, the lack of collaboration between city and university in developing strategic policies and programs for the long-term retention of such talent results in the loss of tremendous opportunities. The ability of a city or region to attract and retain a strong and growing talent pool will determine, in large part, that city's ability to attract and retain businesses and the jobs that they create. Technology allows the private sector to locate jobs wherever a concentration of needed skills can be found thus creating global competition among cities to attract and retain the best workforce possible.

On a fundamental level, successful cities utilize relationships for talent attraction and retention. Whether connecting with the diaspora, creating job opportunities for college students through internships, or building roots to the city through housing opportunities, WCCP cities benefit from building strong relationships between knowledge-economy workers and their city surroundings. Cities with strategies that recognize talent as a 'flow' – both inward and outward – appear to stay ahead of the game despite the effects of economic conditions, as they are able to establish connectedness with current residents and turn emigrants into ambassadors. Some WCCP cities embrace their long histories of emigration or address their population declines and, along with education and training, use the power of talent flows to address skills mismatches, increase entrepreneurial opportunity, and improve their economies. Dublin, for example, uses a national

immigration policy to draw foreign workers to fill positions in the city's growing technology sector while also training local workers for these positions through the Springboard Education Initiative. Dublin stakeholders are also developing a branding strategy to attract more companies and young educated workers to the area.

WCCP cities possess a variety of tools to improve talent attraction and retention, from very local to national levels, and successful city strategies integrate these tools through a variety of stakeholders from the public sector, private business, non-governmental organizations, academia, and community members. Cities that understand the objectives and desires of their skilled workers construct their policies and programs to fully utilize every resource in the 'tool box' and engage stakeholders to implement their strategies successfully, particularly in the face of dwindling resources in difficult economic times.

1 EARLY STUDENT INTEGRATION.

Universities are magnets for talent attraction in the form of students and early integration is the tool to retain them upon graduation. Talent retention efforts must begin before a student receives a diploma. Integrating students into the community throughout their university tenure provides significant opportunities for these young people to develop the relationships and experiences that lead to local job placement postgraduation. Furthermore, this strategy leverages the opportunities inherent in colleges and universities as magnets for talent. Linking students to their host city requires a stronger 'ecosystem' and not just more jobs. Professional associations, informal gatherings, mentoring programs, and the like all contribute to an ecosystem that creates jobs and a sense of community, bonds a student to the region, and increases retention rates. University programs specifically aimed at 1) jobs and 2) connections with the city through exposure to job prospects and other local possibilities increase retention rates, especially with non-native students. Since attaining a high-skill job remains the most important factor in attracting and retaining young, college-educated talent, linking students to jobs through internships and cooperative education should be strengthened. Internships and co-ops are effective at providing both experience and opportunity to develop a professional network and critical to job placement post-graduation.

Many studies and reports note the role of the university as an ‘economic engine,’ a facilitator of entrepreneurial ecosystems in cities around the world, and an anchor institution in a variety of partnerships. WCCP cities exhibit elements of success that translate into direct impact of talent retention, particularly in terms of skills development, job creation, and quality of life factors. The University Pompeu Fabra in Barcelona, for example, played a key role in the development of the 22@ district, working with Barcelona Activa, drawing in thousands of students and attracting numerous research institutions and companies. Vancouver’s CityStudio project, the Port Campus in Haifa, and other examples in this study highlight the potential of university-city collaborations. Opportunities for such collaboration are seemingly limitless, from collaboration with administrations to utilizing students and faculty to assist with day to day functions.

Despite the potential, no WCCP city currently institutes a comprehensive collaboration strategy between universities and city government and other stakeholders. In fact, universities and cities often unintentionally work against talent retention. Many cities and universities lack strong student integration efforts prior to graduation. Student housing, for example, is often limited to the academic year, forcing students to leave the area during non-semester periods when they are most likely to build professional relationships through internships. Of course, all universities treat talent differently and some may not care where their students locate so long as they are employed. Therefore, universities and cities need to build targeted partnerships with each other, as well as with businesses and other organizations, with an intention to keep talent in the region.

2 UNIVERSITY/CITY PARTNERSHIPS. Universities have clearly been successful at attracting students to their regions but should work with their host cities to develop stronger programs aimed at talent retention and, perhaps most importantly, building relationships. Universities and their host cities are partners for talent attraction and retention: cities recognize the workforce development and talent attraction power of local universities; educational institutions increasingly look to city officials and businesses for assistance in improving neighborhoods, collaborating on student housing, and creating jobs for their graduating students. Universities provides a powerful partner for building a valuable talent pool for the attraction of companies and the jobs they create.

Many cities and regions have successfully built a consistent and clear message to the outside world yet some WCCP cities inherited a brand from other areas or from past reputations – Boston, for instance, is known as a college town – but each

city needs to tell its own, modern story. A city’s reputation plays an important role in universities’ ability to attract the best students and in the region’s ability to attract businesses. The former allows a city’s talent pool to be expanded while the latter strengthens the city’s economy and reduces unemployment. Coordinating with diaspora efforts can also communicate the brand to the city’s ‘alumni’ network, spreading the message both at home and abroad.

3 PROMOTE THE BRAND. Cities that have not already done so need to establish a current brand and need leadership to do so. Just as a business would brand a product for target markets, city and policy leaders need to create and maintain a clear, concise, and singular message that promotes the ‘brand’ of the city and identifies and celebrates the real assets of their region, not simply creating a logo and tagline or artificially creating a reputation. Cities and universities also need to work closely together to understand their shared value in developing a strong brand and see the mutual benefit of greater talent retention.

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4 EMBRACE IMMIGRATION. Highly skilled and educated immigrants provide many benefits for stakeholders in any city. Immigrants and international workers start successful companies, generate jobs for the local population, and provide skills to companies that cannot find appropriately skilled employees locally. Not only do immigrants come to work in the knowledge economy, they comprise an increasingly large slice of local college and university enrollments. Immigrants also spread the word and the brand about their former homeland, acting as ‘ambassadors’ for cities.

Strategies to retain talent differ according to the age and stage of life of the talent being targeted. We have identified three specific stages of life with distinct challenges associated with retaining individuals at each of these particular points in life – Stage One: current college students; Stage Two: recent college graduates; and Stage Three: young families. In Stage One, the challenge is to retain students when they

graduate through helping them build strong professional networks from internships and cooperative experiences. In Stage Two, the challenge is to retain those five to seven years post-graduation. Retention is enhanced by a city's ability to provide the amenities for the after-work needs of the young population. Finally, in Stage Three, as individuals settle down and form families, retention focuses more on meeting their requirements for appropriate and affordable housing and day care and other family support.

In WCCP cities, the increase in knowledge-based jobs and growth of the overall population often increases the demand and cost for housing. And while several studies show that some of the younger college-educated workforce are willing to pay more for higher level of lifestyles and amenities, a high cost of housing can play a role in retaining individuals planning to start families. Many cities need more affordable housing options to retain talent: for individuals just entering the workforce, smaller housing units affordable on a starting salary can be hard to find. Furthermore, the recent economic downturn has impacted the production of these kinds of units in many WCCP cities. Affordability, although not the primary determinant of attraction and retention, does play a part in location decisions and areas that address and promote more affordable units will be able to keep more talent.

5 QUALITY OF LIFE AND COST OF LIVING.

In the second phase of retention, immediately after graduating from a post-secondary institution, the quality of life and amenities offered by a city are the largest factors in retention. Young workers are looking for a hip environment with quality nightlife, public transportation, and other amenities. After approximately five years post-graduation, young talent and their needs begin to shift particularly when they start a family, after which housing affordability plays an increasingly larger role in the decision to remain in WCCP cities. As studies have shown, housing choices result from a variety of push and pull factors which change over time and different life stages: young, single, knowledge economy workers require very different housing types than families with school age children (who are also impacted by the quality of public schools).

WCCP cities, and other cities around the world, possess enormous power to influence the attraction, development, and retention of talent. Innovative and bold leadership which utilizes all stakeholders and policy tools will be at the forefront of attracting young highly-skilled workers, the new currency in the global economy, and a magnet for jobs and businesses in the 21st century.

Table 1 shows that WCCP cities vary considerably in terms of retention success. This snapshot from June 2012, using LinkedIn data for individuals who graduated from college in 2005, captures the transition from stage two to stage three and the beginning of more permanent settlement for the college-educated workforce. Although some cities are only reported as countries (i.e. "Haifa" means that the graduate is still in Israel, but not necessarily in the city of Haifa), we can still see that certain cities grapple with retaining graduates based on the variety of factors covered in this study. For example, Barcelona's impressive showing in this chart is likely due to a hip environment, non-work activities, city branding, and programs addressing skills mismatches, although the city is still struggling with current economic conditions and high unemployment rates that are forcing more recent graduates to consider better opportunities abroad. Guadalajara has recently fostered collaboration between the business community and universities to make up for the skills mismatch between the college-educated workforce and local employers. Boston attracts thousands of college students every year but graduates leave the area because of weak connections with local employers and culture and few hip entertainment and non-work options during their first few years out of college.

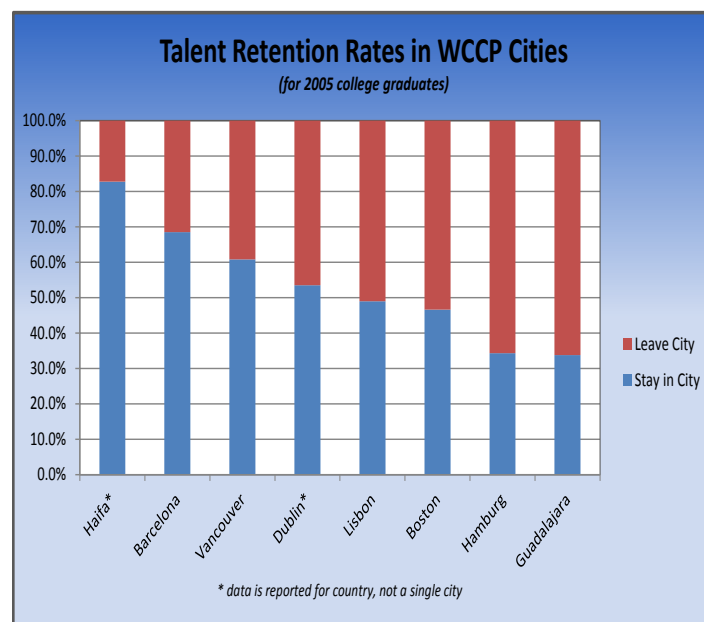


Table 1: Talent Retention Rate in WCCP Cities for 2005
Above all, this chart highlights that cities around the world are competing for talent, the currency of the knowledge economy, and to maintain a globally attractive workforce each of this report's talent attraction and retention factors in each life stage should be addressed.

TALENT: A CITY'S GREATEST ASSET

In a global economy, city officials increasingly worry about attracting and retaining young, college-educated individuals in the knowledge economy. Countries and cities now compete for talent on an international scale, and many now realize that future prosperity depends almost exclusively on people and networks, not natural resources and tax breaks. Firms also fight to attract highly educated and skilled workers, with many choosing new cities for their own expansion based on the potential talent pool there.

Cities should be concerned about talent, even those cities that appear to have an abundance of young, educated workers. Cities around the world face talent shortages in a wide range of occupational clusters largely because populations are aging rapidly and educational standards and skills development are insufficient^{1,2}. Young college-educated individuals constitute the most mobile, urban, and entrepreneurial sector of the population and are a key contributor to the economic vitality of cities^{3,4}. Young talent makes up an increasingly important part of the expanding knowledge-based economies in WCCP cities, and the creativity and availability of this workforce will determine economic opportunities and success for urban regions around the world. With globally shifting labor markets and an ease of mobility not seen before, even cities with a seemingly limitless supply of talent must now compete for a strong, attractive, and talented workforce.

To state the obvious, availability of jobs and overall labor market conditions are the biggest attraction factors for young, college-educated individuals⁵. Additionally, young people locate and settle down based upon personal and professional networks, housing affordability and quality of life factors, such as culture, climate, and recreational amenities^{6,7}. Cities now find themselves not only in the business of creating jobs but also creating vibrant urban centers that attract new people, ideas, interaction, and collaboration⁸. The Economist's 2012 report on Global City Competitiveness cited quality of educational systems and an entrepreneurial mindset as the primary indicators of the ability of cities to develop and attract the world's top talent⁹.

Cities also need to act quickly in order to retain their talent. According to a study of youth migration in the United States, most shifts in location occur within five years of college graduation and movement tapers off and declines after 10 years from graduation¹⁰. Regardless of motive, this high percentage of post-graduation movement indicates that retention factors impact talent choices relatively quickly.

The real question in talent retention then is: what are the right strategies for cities to provide jobs, amenities, and an

affordable cost of living?

With these concepts of talent mobility, global competition, and push-and-pull factors as a backdrop, the World Class Cities Partnership (WCCP) spent the past year identifying best practices in talent retention in our partner cities. The findings are presented here. Overall, WCCP cities found that for all of the talk about talent and mobility of talent in each of our cities (and other cities around the world), *none has a comprehensive talent attraction and retention strategy*. Universities play a large attraction role in many of our cities, but many of these institutions do not see retention of graduates as an important or relevant issue. Corroborating the research mentioned above, job availability and housing costs are important factors for young people a few years out of college in WCCP cities. However, one of the biggest discoveries of our research is that time, or rather timing, itself appears to be a major factor in determining talent flows, something that other studies rarely emphasize. Whether it's early integration of current students into the local job scene, providing cultural amenities for those 20-somethings within the five-year window of mobility opportunity, or a supply of affordable housing for couples and families, WCCP cities found that successful talent strategies for each of these three phases recognize the difference in needs depending on life stage for seamlessly implementing policies and programs to build a talent pipeline.

These findings and recommendations are the first steps of many for city officials and policy leaders to create a collaborative, comprehensive and long-range policy approach to attract and retain talent.

THEMES AND FINDINGS

A city’s best chance of retaining talent is to establish early, comprehensive and long-term strategies for integrating students. Universities act as natural magnets for attracting young people who will eventually enter the knowledge economy workforce. However, the pull of this magnet is temporary and cities risk losing their greatest asset – their college-educated workforce – and losing businesses, which locate based on a skilled talent pool.

Availability of Jobs

Cities and universities fail to collaborate on a variety of efforts to retain students prior to graduation day. Without roots in the community, especially professional networks and personal relationships, graduates feel no ties to their cities and leave for competing locations, taking their “entrepreneurialism”, skills, and income with them.

care sector), employment fields that weathered the global recession well and retained talent due to the availability of jobs. Dublin and Barcelona, which are experiencing very high levels of unemployment locally and nationwide, also show lower unemployment rates compared to their national rates largely because of strong knowledge economy sectors. Barcelona, with an unemployment rate over 22% for the general population and almost 50% for youth, now experiences population losses with non-native talent returning to their homelands and native Catalonians looking abroad for job opportunities and greater earning potential. Yet within this economic downturn, Barcelona’s entrepreneurial ecosystem and active economic development agency contribute to the city’s higher ranking as compared to the rest of Spain for innovation and employment. For example, 23% of all innovative companies in Spain are concentrated in Catalonia, accounting for more

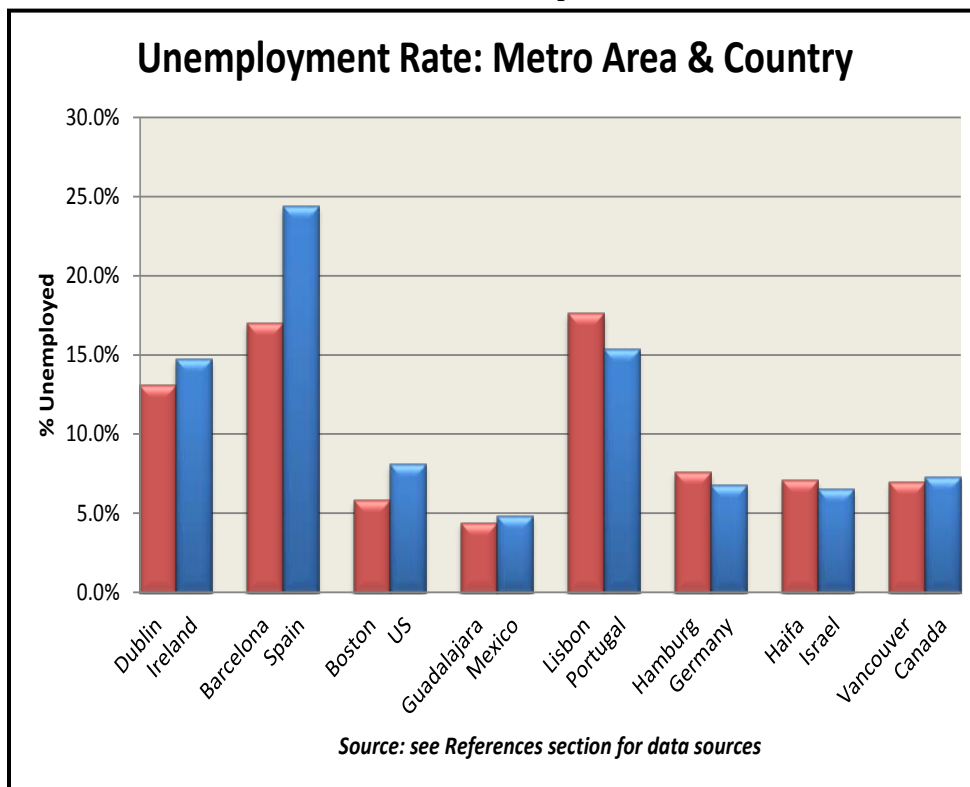


Table 2: WCCP Partner City Unemployment Rates

All WCCP cities cite the availability of jobs as the top requirement for talent attraction and retention. The unemployment rate for WCCP cities varies considerably and affects the ability of cities to attract and retain talent but other tools, such as immigration policy and programs for retraining workers with needed skills, can limit this impact. Table 1 shows that several WCCP cities have lower unemployment rates than their national averages.

Boston, Guadalajara, and Vancouver are centers of technology and higher education (Boston also has a strong health

than 20% (\$4.6 billion) of the total national expenditure in innovative activities¹¹.

Lisbon and Hamburg, on the other hand, contain a higher number of older industries which suffered more during the economic downturn: their still-emerging technology sectors could not pick up the employment slack. Hamburg’s large aviation cluster lacks enough qualified engineers to fill available positions, illustrating the impact a misaligned workforce can have on a city’s ability to foster growth in existing businesses or ability to attract new companies, which bring more jobs with them.

Addressing the Skills Mismatch

National and global needs for educated talent create skills shortages in WCCP cities. Employers are having difficulty in finding suitably qualified and experienced people in the areas of information and communication technology, engineering, science, finance, health care, and sales. The need for skills in the STEM disciplines (Science, Technology, Engineering and Mathematics) is particularly acute. Technology-oriented economies in Dublin and Boston, for example, lack enough employees to fill available positions, preventing companies from growing. Boston area startup companies often must look far beyond the metropolitan region for qualified software coders despite having the most prestigious universities in the world within walking distance. Vocational schools and community colleges can provide skills training for a variety of these vacant positions since many of these technology jobs do not require a full university degree. However, school courses in secondary, vocational and university levels often remain unaligned with local company needs and students are not encouraged by educators to pursue STEM disciplines. As a result, nearly 120,000 jobs are currently going unfilled in Massachusetts due to a mismatch of skills for these positions, despite 240,000 people still looking for work¹².

The skills mismatch problem is evident in Ireland as well. The “Celtic Tiger” economy of the 1990s and early 2000s relied heavily on the construction trades and many Irish trained and gained skills related to the building industry. When the construction bubble burst, many workers found themselves with skills unrelated to the growing high-tech sector. The information and communications technology (ICT) sector, which continues to grow and attract companies such as Facebook, Google, and IBM, sources approximately

55% of its high skill positions with immigrants¹³. With high global demand, these companies are having a harder time attracting workers, thus weakening Dublin’s talent pool and attractiveness to such companies. While companies continue to fill managerial, professional, administrative, sales and marketing positions without difficulty, they have difficulty attracting computer software engineers, network specialists, security experts, and sales and marketing personnel with a technical background. ICT firms have indicated the need to plan five years ahead to create an adequate supply of high-level ICT workers¹⁴. Additionally, 60% of green technology companies recently reported that they had current skill gaps and 40% had experienced difficulty in filling some positions¹⁵. Roughly one third of companies had recruited experienced and specialized professional staff from abroad. Companies cited weakness in mathematical proficiency, business acumen, communication skills and problem solving capabilities. Dublin and Ireland created new programs to address these skills shortages (see Springboard Education Initiative insert) while also maintaining a fluid and open immigration policy to fulfill shorter-term personnel goals.

While many cities find that employers have difficulties finding qualified employees, some find that qualified employees lack the large local employers necessary for career opportunities and growth. Just as a vibrant workforce requires diverse skill sets, a diverse “employment-force” is necessary to provide long-term retention of qualified employees. Companies vary in size, capacity and needed skills, and workers understand the benefits and limits of these differences: talent can migrate due to a lack of employment opportunities in their chosen field or the opportunity for advancement and attainment of a broader skillset and greater earnings in other employment settings. For example, WCCP researchers in Vancouver discovered that the absence of large companies

SPRINGBOARD EDUCATION INITIATIVE

DUBLIN

In 2011 the Irish government introduced the Springboard Education Initiative for people unemployed and seeking employment. Springboard’s primary objective is to help unemployed people to remain engaged and valuable to the labor market by accessing part-time flexible higher education and training opportunities to upskill or reskill in areas where sustainable employment opportunities may arise as the economy recovers.

Springboard offers over 5,000 participants free, part-time placement in higher education courses leading to awards at certificate, degree and post-graduate level in seven identified skills areas where there are employment opportunities in Ireland now and in the future. In May 2012, a further 6,000 participants were announced for courses in the expanding enterprise areas



of information and communication technology, medical devices, the green economy, pharmaceuticals, food and beverages and international financial services. Springboard participation is aimed at unemployed people who have lost their jobs as a result of the recession and who would benefit from up-skilling or cross-skilling in their efforts to get back into sustainable employment. Although employment placement figures are currently under review, initial program evaluations show that participants and external stakeholders consider the program to be a positive initiative.

CIBERNARIUM BARCELONA

Since 1999 Barcelona Activa – the city’s economic development agency – has promoted the Cibernarium, a center for technological skills acquisition and diffusion that trains individuals in information and communication technology skills.

A multi-purpose space for the age of the Internet and new technologies, the Cibernarium is one of the biggest centers for technological diffusion in Europe and provides a combination of spaces for facilitating universal access to new technologies for companies (98% of Barcelona’s businesses are small or very small enterprises with limited ability to train employees in new skill sets), professionals, the unemployed, and internet beginners. The Cibernarium offers numerous, free programs to adult citizens of the Barcelona region that include everything from IT literacy to skills acquisition and technological professionalism. Barcelona Activa created and manages the Cibernarium through funding from the Barcelona City Council and Government of Catalonia.

The training activities in new technologies of the Cibernarium are characterized by their practical nature and short duration, and are divided between activities for IT literacy to make an initial contact with the new technologies and the activities aimed at professionals and companies. In 2011, the Cibernarium trained over 75,000 participants in digital technologies, over half of whom were unemployed individuals improving their digital literacy skills to improve their chances of employment in the local job market.



was tied to talent retention in two key ways. First, despite their large number, small and very small Vancouver companies (an overwhelming majority of the business sector) find growth difficult because they lack the capital and resources to attract talent, especially from outside the region. As a result, small enterprises with significant intellectual capital and growth prospects often remain small or sell out to larger companies outside the region. Second, very few companies in Vancouver have more than 100 employees and few are major international companies with headquarters in the region. Workers in Vancouver find it challenging to enhance and expand their skill sets without the variety of job experiences that a larger company provides, leading technology workers, for instance, to seek opportunities in Silicon Valley or Toronto.

Student Integration

Unfortunately, too often efforts to retain young talent begin too late. Rather than engaging students from the time of their arrival on a college or university campus, we wait until students are graduating to try and keep them, when there is no time to build roots and an attachment to place. Students often remain within the confines of their campus even in the middle of a large city and do not get a chance to build relationships with local officials, businesses, institutions, and culture. As a skilled workforce has become a primary determinant of economic development and competitiveness, early attention to the steady stream of locally educated graduates should be an obvious focal point for state and local efforts to

attract and retain talent.

As part of our research for this report, WCCP partner cities interviewed senior officials at their local universities and city government to understand how universities and cities work together to attract and retain talent as well as identify any expectations that each have of the other, whether formalized or not. Universities in each WCCP city play unique and different roles. Boston, for example, is practically defined by its universities and relies heavily on them as local employers for the local labor market, and creators of spinoff companies through technology transfer offices and local networks. For example, Massachusetts Institute of Technology (MIT) alumni have started almost 7,000 companies headquartered in Massachusetts¹⁶. Therefore, the opportunity for collaboration between government and universities around strategies for attraction and retention efforts in cities like Boston, with a dominant university presence, will likely take on a far greater importance and should be tailored for this unique role by policy makers. However, a university presence in any city creates opportunities for greater talent attraction and retention, which are made stronger and more probable through such collaboration.

But for the most part, universities are far more interested in attracting students than retaining them after they graduate. Universities are very interested in their graduates getting jobs, but not necessarily, or even preferably, in the local economy. Cities, therefore, lose young, college-educated talent to their competitors.

CITYSTUDIO VANCOUVER

CityStudio is a project of the Campus-City Collaborative, conceptualized to directly involve undergraduate students in the process of solving the challenges of Vancouver's pursuit of its "Greenest City" goals. This innovative studio program enrolls up to 20 students from six different post-secondary institutions each semester in a program that emphasizes design thinking, dialogue and leadership development. The students receive credit in their own institutions for the course – up to 15 credits for studios that run five days a week (with additional, less-intensive options as well). The subject area for each semester is chosen in close consultation with senior city officials, who also provide background information to the students. The goal of each semester is to develop specific initiatives capable of being implemented by the city.



In addition to the studio program, the participating institutions run 10 partner courses dealing with subjects that directly link to, or support, the issues being addressed by the studio. Through significant interaction between faculty and students involved in the studio and those in the partner courses, a substantial body of expertise can be assembled.

In its first year, CityStudio engaged 480 students and 18 faculty across 12 disciplines in the six participating institutions, contributing 20,000 hours of work towards the "Greenest City" goals¹⁷.

CityStudio



PORT CAMPUS HAIFA

In a strategy to address an outmigration of young talent and a downtown in need of economic revival, the mayor of Haifa announced the redevelopment and construction of the Port Campus in 2008. With a specific focus in attracting and retaining a younger population, the Haifa municipality decided to create a project that would renew the lower city. Located on the city's eastern waterfront and accessible to large cargo ships, the Port Campus area was once filled with factories, various businesses and government buildings, but with sprawl and the relocation of key businesses, many areas throughout downtown and the Port were abandoned and the area experienced economic decline.



BEFORE

The uniqueness of the Port Campus project lies in its strategy of urban restoration through higher education: six institutes of higher education have already been established there, and more are on the way. The idea behind the project was that by investing in public infrastructures and promoting colleges, businesses, students and youth to move into this neighborhood, then later the entire Haifa population would be attracted to the area. To help with this strategy, the city also supports quality of life programming in the area such as "Kabbalat Shabbat," a street fair with Israeli musicians and food and drink stands which takes place every Friday night in the summer. The city expects that young people will continue to come, study, spend their leisure time and live in the area. About 8,000 students are currently studying in Port Campus, making the neighborhood increasingly attractive for entertainment venues, restaurants, and shops locating nearby. Today, there are 1,000 students living in the Port Campus area.



AFTER

However, some cities and employers are working with universities to align university education with business needs, develop entrepreneurial talent, and create new businesses through technology transfer. In Mexico, many chambers of commerce structure boards to build a strong relationship between universities and the local labor market. CANIETI (Guadalajara's chamber of commerce of information technology industries) boards are organized within each large university in the metropolitan area to identify and manage programs and talk about the skills needed for employment after college graduation. Some universities in the program are part of nationwide, multi-campus systems yet focus on Guadalajara business skill needs. These collaborations offer scholarships and technical experiences in area companies for students; collaborations in which a professor or researcher is involved in a project of the company and in which the company is involved in the curriculum of the university (by participating in a professor's course, for example); and board meetings with universities where CANIETI meets with three local universities to revise programs and skills of students.

Barcelona's University Pompeu Fabra created a new campus setting within the 22@ innovation district, operating alongside companies, research centers, continuing education centers and technology transfer agents. This new model encourages synergies between businesses and post-secondary

education, ensures that an extensive network of highly qualified students and graduates from Pompeu Fabra is available for local companies, and fosters cooperation between research teams and the companies located in 22@.

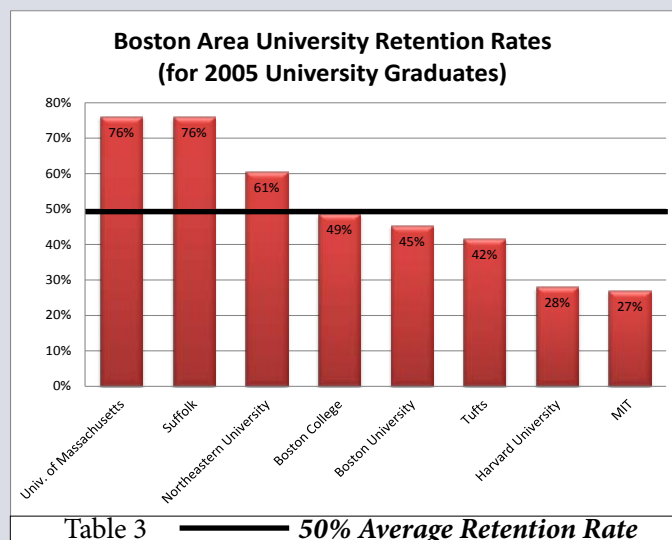
In addition to these examples, the CityStudio, Cooperative Education, and Port Campus cases illustrate both new and established techniques at integrating students into the city through experiences prior to graduation. Northeastern University's cooperative education program is one of the oldest and largest in the world and more than 7,000 students are on a cooperative placement each year. All Vancouver post-secondary institutions operate intern programs that provide opportunities for students and recent graduates to gain short term employment in the public and private sectors. Though Vancouver's new CityStudio project just began (see case study) it is already in demand with city officials, neighborhood residents, and university students.

COOPERATIVE EDUCATION BOSTON

Northeastern University's cooperative education program (co-op), one of the oldest and largest in the United States, engages 91% of the student body in employment during their university period and gives them real-world experience that translates into talent retention for the Boston area after graduation. Unlike internships, which can simply provide part-time employment not well-invested by employer or student, the co-op is a working relationship between the university, student, and business and is an integral part of the curriculum.

Students can participate in up to three co-ops of six months each during their five-year academic tenure. Northeastern's co-op education program, like all co-op programs, connects students with the local job market, creates awareness of local companies and jobs, helps build professional networks, and increases the chances of graduates getting hired and staying in greater Boston. An examination conducted recently by graduate students at Northeastern University confirms that retention rates are higher at Northeastern than peer schools in the Boston area. The table below shows that "locals" schools, such as University of Massachusetts Boston and Suffolk University, retain the most students in the area. The study expected to see this since these universities also have the most students who grew up in the state. However, Northeastern is the only university in the study with a majority of non-native students yet with a retention rate over 50% after five years post-graduation. A majority of co-op jobs are in the greater Boston area and many employers hire their co-op students after graduation. The co-op program, therefore, retains more Northeastern University graduates and increases the talent pool for Boston.

Source: Northeastern University 2012 MURP Capstone class; LinkedIn



Strategic Immigration Policies

Many local business and political leaders in WCCP cities express frustration with existing immigration policies. The United States, for example, reduced H-1B work visas and made green cards more difficult to obtain, often requiring the highly valued, newly educated graduates to take their knowledge and go back to their homelands – an “educate them then kick them out” attitude. And when talent is forced to leave, cities not only lose the skills and weaken the talent pool, but also empower their competition which gains these young workers.

A 2009 Kaufman Foundation study found that over 50,000 workers with advanced degrees are forced to leave the United States every year due to restrictive immigration policies. The report recommends that ‘of all the policies that could be changed, probably none would have a greater positive impact on long-term economic growth than removing barriers to the immigration of highly skilled and highly educated individuals.’¹⁸ A recent report by the Partnership for a New American Economy found that the American immigration system is “slow, inflexible, and not synchronized with the nation’s labor needs,” while countries like China are aggressively persuading citizens to return to the homeland from the United States by offering bonuses, housing subsidies, and tax exemptions¹⁹. In the United States, available H-1B visas for skilled workers can’t keep up with business demand: on April 2, 2012 the United States Citizenship and Immigration Services opened applications for H-1B visas, reaching the 85,000 quota on June 11, 2012²⁰. Boston area technology businesses, the Greater Boston Chamber of Commerce and other eco-

conomic stakeholders claim that these types of restrictions are limiting the quality of their workforce, company growth, and the area’s global competitiveness²¹.

Despite the tightening of immigration since the September 11, 2001 terrorist attacks in the United States, immigration is not just an American issue. Hamburg, Germany appears poised for growth and continued prosperity as one of the most affluent cities on the continent. However, Hamburg’s growth could be stunted by a national worker shortage, particularly in the area’s large aviation industry. Hiring immigrants is an obvious solution yet WCCP researchers in Hamburg find a national and local hesitation at opening the country’s doors to new foreign workers and find that city officials see ‘no concept of treating immigration as a potential.’

The WCCP cities that are attracting skilled immigrants into good jobs understand the potential for filling skills gaps and harnessing the entrepreneurial spirit of foreign workers. Dublin, Vancouver, and Guadalajara benefit from national immigration policies that allow foreign workers to fill employment needs that are not being fully met with native talent, particularly as each city experiences growth in employment sectors requiring a highly-skilled workforce. Canada, for example, experiences labor shortages in both skilled and lower-skilled workers due to decreased fertility rates and an aging society. Some estimates, such as those from OECD, project national labor shortages of at least one million workers by 2020. Immigration has become one of the primary methods of ensuring an influx of talent and Canada now leads the industrialized world in the percentage of foreign educated workers (see table 2). Canada recently made several

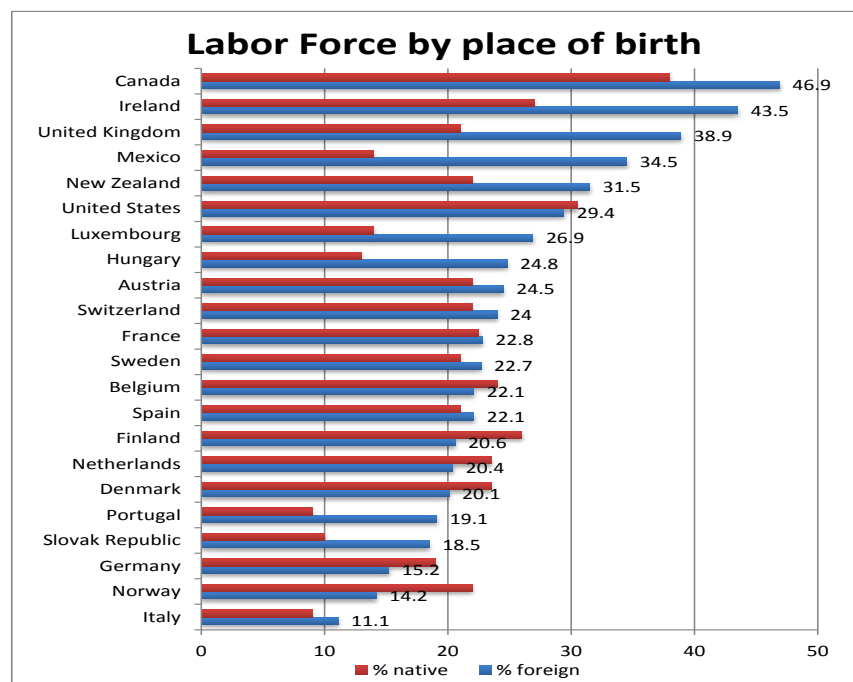


Table 4: Share of labor force with university education attainment, by place of birth, 2005 (source: OECD, 2011)

changes to its already-generous immigration policies. Unlike in many other countries, Canadian immigration policy is an area of shared federal and provincial jurisdiction, operating under federal-provincial agreements. In recent years, Canada's immigration policy has placed increased emphasis on 1) provincial policies and programs, with a diminishing federal role, and 2) immigration to attract workers, as opposed to other priorities, such as family reunification.

Immigration changes reflecting native skills shortages may be changing elsewhere: the United States, for example, is currently debating "Startup Visa" legislation that would create a new visa category for foreign entrepreneurs who have raised qualified venture capital from American investors. And some cities, in addition to providing training programs for local workers, take the initiative in identifying those employment

needs and directly matching them with talent abroad: Vancouver uses talent-seeking missions to recruit specialized talent such as IT workers from California and specially-skilled construction workers from Europe.

WCCP cities also found that the process of immigration does not end once talent has reached their shores: cities can take the lead in efforts to integrate immigrants into their cities and help them establish roots and relationships. Local leaders can implement programs to help immigrants understand how their new city works, assist in language training, and identify and remove barriers that make it harder for immigrants to maximize their contributions to the economy.

LINGUISTIC COUPLES

BARCELONA

Commonly known as the "Linguistic Couples" program, Volunteering for the Language encourages Catalan speakers to dedicate a minimum of ten hours of conversation (one hour per week for ten weeks) in Catalan to new immigrants. Created in 2003, the program currently has 22 centers throughout Catalonia and in 2011 formed over 10,000 couples. A native speaker is matched up with a new immigrant and couples meet in casual settings with the aim of providing immigrants with a basic level of Catalan language skills in real world settings. In addition to developing their comprehension and speaking skills, new immigrants are exposed to Catalan cultural institutions and leisure activities²².



Leveraging Lost Talent

Despite their best efforts, cities cannot expect to retain every young worker. College-educated workers are more likely than those without a college education to migrate. Some WCCP cities are attempting to leverage the power, connections, and relationships of their overseas diaspora for the home countries' benefit. Many entrepreneurs, academics and others in the knowledge economy maintain working relationships in many parts of the world and circulate among them according to the opportunities in each. Those workers who maintain strong relationships with their former home city can contribute to that city's economy, through programs like ConnectIreland, and even be enticed back through efforts such as C100, a private organization in Silicon Valley that seeks to help Canadian IT workers return to Canada²³.

One recent government initiative is harnessing the power and the contacts of the Irish Diaspora, estimated to be 70 million worldwide with Irish ancestry and 3.1 million currently holding Irish passports but living overseas (approximately 15 times more Irish live outside Ireland than the current resident population of 4.6 million). ConnectIreland, a crowdsourcing idea, is designed to help create 5,000 new jobs over the next five years²⁴. ConnectIreland is asking individuals to use their contacts, family, friends and business connections to identify and make introductions between ConnectIreland and overseas companies that are considering international expansion. Any individual who introduces a company that invests in Ireland and creates new jobs receives €1,500 per job, up to a maximum of 100 jobs.



Ireland has a long history of migration and this experience has informed policy makers that the fight for global talent is not just about keeping it but rather being open to labor flows, whether they are flowing inward or out. This ultimately can lead to a more diverse and experienced workforce with international experience. The interactions with the Irish diaspora are an example where many multi-national corporations are attracted to and support Ireland due to cultural connections. The initiative has already delivered its first job creation project with the news that Intergeo Services, an environmental contracting company, is to establish its Europe, Middle East, and Africa headquarters in Ireland with the creation of 30 jobs. ConnectIreland hopes that this effort will continue this early success and help in lowering Dublin and Ireland's high unemployment rate.

Importance of City Branding

In order to compete effectively, cities must be successful at branding and marketing themselves. Globalization means that cities everywhere are in competition, making branding more important than ever.

Evidence suggests that city branding matters. Many scholars, practitioners, and city officials agree that cities and regions should be marketed as efficiently as private firms market products or services²⁵. Richard Pinder, leader of the global advertising network Publicis Worldwide, commented:

Cities are having to start thinking and acting more like brands than ever before. Increasingly they compete with each other for investment from global businesses, vie for the tourist dollars and struggle to attract world class talent... You can't place a high enough value on getting a city's branding right today.²⁶

Branding is very central in contemporary marketing. Building strong brands requires a clear identity and position as well as consistency over time. Strategic brand management involves the design and implementation of marketing programs to build, measure and manage brand equity and successful branding requires a city to identify the characteristics of its "product," understand how to develop a brand identity differentiated from other cities, and create a distinct personality based on real, unique city assets. There have been successful city branding strategies in New York, Barcelona, London, Vancouver, Chicago, and Amsterdam. Each city has focused its branding strategy on various scales, national and

global, and at a variety of audiences, such as business and tourism.

A city's brand can attract talent. Local business leaders and policy makers in Vancouver, for instance, leverage worldwide exposure from the 2010 Winter Olympics to continue to try and coordinate a common message about their area's intense concentration of technology-based industries, knowledge workers, outdoors amenities, and rich cultural scene. However, some reputations may not accurately reflect the city. Boston and Haifa, for example, are more commonly known as university cities but perhaps less understood as centers for innovation and high technology. Barcelona, long known for culture, art, and nightlife, finds its reputation for science and research lagging behind, despite an abundance of universities and investment in research centers. Branding efforts sometimes also get overshadowed by other locations that do a much better job at promoting their brand and word-of-mouth anecdotes. And cities that do not invest in defining their image will likely find that their image is defined for them by their competition. For example, Silicon Valley – a primary competitor in innovation and talent to many WCCP cities – successfully promotes a notion that venture capital funding is abundant and easy to get despite the fact that other places, like Massachusetts, have more venture capital funding per capita than California.

CITY BRANDING

DUBLIN

Dublin has embarked upon a major branding effort to define a dynamic and innovative Dublin Brand that captures the region's unique qualities, is well managed and communicated, and enhances Dublin's attractiveness as a global center for international investment, trade, tourism, and talent.

How Dublin is perceived by its citizens, stakeholders, businesses, potential investors, and visitors, and how it portrays itself to the world, is crucial to the future development of Dublin and Ireland. A coherent, aligned and supported reputation can act as a powerful force for economic and civic development. Internationally city regions are driving the development of national economies and are emerging as hubs of population and connectivity in the global economy. Managing Dublin's reputation is managing the promise of this value for Ireland.

A recent publication "A Roadmap for Branding Dublin" outlines proposals for building on Dublin's strengths and managing its international reputation in proactive, engaging and creative ways. It proposes an ambitious goal – to launch the brand by June 2013. The launch will include a Dublin Brand Book, a new visual identity, re-launch of the Dublin.ie website, and promotion, communications, and development strategies.



HiCENTER

HAIFA

HiCenter, Haifa's unique business accelerator, focuses on technology based businesses, staffed by a team of experts who help build a solid foundation for entrepreneurs creating new businesses. Located in the developing Port Campus area, HiCenter is backed by the Office of the Chief Scientist of Israel.

In order to be candidates for HiCenter investment, entrepreneurs must present a Proof of Concept, be technology oriented, and have strong business potential. Furthermore, selected entrepreneurial teams are expected to work in Haifa and must



guarantee continuous operation, including the establishment of a manufacturing facility in Haifa's greater metropolitan area for a period of five years from the graduation of the Hi-Center program.

The entrepreneurs are required to present commercial aspects of their initiative including available market, go-to-market strategy, etc. HiCenter expects to see a detailed two year execution plan including the forecast of sales, allocation of additional funds and potential strategic agreements or collaborations. HiCenter typically invests up to \$375,000 out of a budget of over \$500,000 for a single portfolio company. The entrepreneurs are required to allocate supplemental funds of \$125,000 from private equity resources or potential investors.

Innovation Districts and Industry Clusters

The power of cluster development is nothing new and has only gained traction and speed in recent years. A notion popularized by Michael Porter in his 1990 book *The Competitive Advantage of Nations*, clusters are groups of similar and interrelated firms in a small area that take advantage of unique local resources which fosters both competition and cooperation²⁷. Knowledge sharing, spillovers, and the like produce a mix of ideas that, ostensibly, benefit all. The proliferation of “innovation districts,” “cluster councils” and “regional clusters,” for example, show the excitement and possibilities of this evolving economic development technique.

Some researchers and practitioners remain unclear as to the specific role and impact of top-down efforts at spurring cluster development, with some arguing that

natural development of a cluster may have occurred without government intervention²⁸. Yet government can play several roles: convening private and public leaders, educational institutions, entrepreneurs, NGOs, and venture capitalists; providing space necessary for interaction and innovation; removing regulatory barriers; and providing funding in terms of capital and infrastructure investment²⁹.

Government officials at all levels attempt to mimic the mix of policies, players, and programs to achieve the same results as celebrated clusters. The best known clusters – Silicon Valley, Silicon Wadi and Route 128 (information technology), Toulouse (aerospace), and Minneapolis (medical devices), for example – are large agglomerations that have had a number of years to form and possess abundant resources (a large labor pool, access to significant amounts of capital, support services). Increasingly, however, city officials realize that innova-

CIUDAD CREATIVA DIGITAL GUADALAJARA

Ciudad Creativa Digital (Digital Creative City), located in the historical center of Guadalajara, aims to be the most important media cluster in Latin America. The project, covering almost 600 acres and which broke ground in August 2012, promises to create a new economic development model that is both sustainable and within the framework of a future prototype urban environment with three primary objectives:

- to attract companies and talent
- to foster and create local companies and leadership in the industry of digital media and technology
- to redevelop the historical center of Guadalajara through housing, jobs and recreation. The Ciudad also seeks to establish an urban smart solutions living lab to better understand city dynamics through fully integrated system platforms³⁰.



Guadalajara was selected over 11 other Mexican cities and all aspects of the Ciudad plan were developed together with participants from the Secretary of Economy, the City of Guadalajara, State of Jalisco, ProMéxico (the federal foreign trade and investment agency) and Canieti (Chamber of Commerce of Technological Industries). 25,000 direct jobs are predicted to be created and tens of millions of dollars are expected to be invested through foreign investments and international companies (IBM, Hewlett Packard, Intel and Google have already shown interest in the project)³¹.

tion districts are more than simply the agglomeration of jobs and industry and now pay closer attention to creating places that foster innovation and entrepreneurialism including residential and commercial uses and civic spaces that encourage interaction and vibrancy. Innovation districts and other neighborhood-building efforts complement the availability of jobs, increasing density, social interactions, and the development of innovative ideas.

Districts such as these now promote a sense of place and community and build ties between a young, college-educated worker and their city, increasing the chances of retention. These districts can also serve as magnets for attracting companies and encouraging startups, thus expanding opportunities to attract and retain talent.

22@BARCELONA BARCELONA

One of the best-known and emulated innovation districts in the world, 22@Barcelona lies in the southeast corner of the city and was a formerly underutilized industrial zone. Since 2000, approximately 4,500 companies have moved to the district (almost half of which are new startups and the rest from other parts of the city), resulting in more than 56,000 new workers currently³².

In 2000, the Barcelona City Council approved a new planning ordinance transforming 500 acres of land into a new knowledge-based economic district with a mix of offices, business services, subsidized and market rate housing, open space, and cultural amenities. The city council realized that residents would be key to the success of the neighborhood and devised the successful strategy to keep existing families in the neighborhood as well as draw in new workers in the knowledge economy businesses to a vibrant urban environment. The city allowed land owners in the 22@ district who agreed to release 30% of their land holding for new public investment in shared green space, publicly subsidized housing, and knowledge-based activities to build at greater heights than current zoning allowed. This increased the value of their properties and has almost doubled the number of dwellings in the area. The plan has added approximately 4,000 new state-subsidized housing units, with at least 25% available as rental units, and attracted students and young workers to live in close proximity to new university and employment opportunities.

The 22@ project – a nod to the area's former 22A industrial zoning designation – combines economic development with urban transformation. As was typical of many large-scale projects in Barcelona throughout the past two to three decades, this was very much a top-down public sector intervention.

An ad hoc corporation, 22@bcn Inc., implemented the project including all planning, administration of infrastructure, services, and public space, and national and international promotion of the area with the aim of attracting or generating new companies within the district. 22@bcn Inc. engages in a variety of public-private partnerships in the administration and promotion of the district, such as negotiating the ceding of municipal land to private companies, acting as a shareholder in public-private agencies, holding land lease, and providing basic infrastructure. The district is broken down into zones, initially based upon seven economic activity areas including media, bioscience, university and R&D.



Housing Affordability and Quality of Life: Shifting Priorities

Housing costs and quality of life factors play a significant role in talent retention but these factors shift over time and through life stages. Cities are well aware that high housing costs force young, recently graduated knowledge economy workers to leave for other cities. If housing costs were cheaper, they say, more graduates would remain in the area. These statements, however, miss the complexity of housing costs on location choice and inadvertently shift the policy focus to strategies that do not necessarily address the loss of young knowledge economy workers.

People prioritize housing affordability based on housing needs, which shift as they age. Recent graduates from local universities, for example, find it easier to live in roommate situations, sharing high rents and making housing costs more manageable. Couples and families, unable or unwilling to live in roommate situations, often leave for reasons associated with housing options, schools, and affordability. A Boston study found that recent college graduates tolerate high housing costs (as renters) in the metropolitan area, but many expressed doubt about their ability to stay in Boston as their hous-

ing priorities shift with age and lifestyle. As two young respondents noted:

I have lived in Boston for seven years and I love it. I only wish I could afford to stay and buy property – the housing market for young people is out of control. If we stayed here, we'd never be able to afford our own place.³³

Who wants to be 30 and still have to live with roommates because they can't afford a place of their own?³⁴

As important as affordability is to the future of these respondents, their current priorities focus less on housing costs and more on quality of life and employment opportunities. In fact, graduates who leave the Boston area migrate primarily to more expensive housing markets in New York City, San Francisco, and Washington DC.

Quality of life issues play a role in location decisions but also vary depending on age. Younger people consider nightlife options and transit availability more so than older couples and families, who place a higher priority on a variety of public services, such as public schools, libraries, health services, education, parks, law enforce-

STUDENT VILLAGE, HAIFA

In 2007, the mayor of Haifa decided to revitalize the Hadar Hacarmel Quarter as part of a general urban renewal plan. This initiated a joint venture of the Municipality, Haifa University and the "Perach" tutoring project to bring about a process of change that would lead to the empowerment of the residents of Hadar Hacarmel, integrate university students into the city, and retain talent after graduation. Now in its sixth year and with 90 university students engaged, the Hadar Hacarmel Quarter is home to 47 former student participants who chose to stay and live in the community.

"Perach" is a project that pairs up needy children from underprivileged backgrounds with university students who act as their tutors, giving the child personal attention and serving as a role model. The Haifa Municipality Social Services Department identified the neighborhood with the greatest difficulties and distress and that is where the Student Village was established. The students live in apartments throughout this area and not in separate dormitories. They are committed to giving of their free time to work with the people in that neighborhood. For instance, they act as role models for the local children, thereby enriching community activities and drawing other young people to live in the area. The university provides the students with a \$4000 scholarship for apartment rent in return for 380 hours a year of volunteering work in the community.

ment and social services, when making housing and location decisions³⁵.

Policymakers, therefore, should consider housing affordability when creating talent strategies but should not mistake affordability as the primary determinant of attraction and retention for all talent. Given the relatively short window of movement and settlement of young talent post-graduation, policymakers need to target their housing efforts to age-specific cohorts, with age-specific needs, instead of promoting vague policies that fail to recognize life stage differences. In addition, this highlights the importance of cities to focus on more than just housing as a solution to talent retention.

As this report shows, talent is a city's most valuable currency in the global economy. The ability to attract and retain talent leads to the attraction and growth of businesses, thus strengthening the economy. Universities and cities each have an important role in improving attraction and retention results. This report provides concrete examples of innovative policies and programs that can be adapted and adopted by other cities, ranging from student and immigrant integration to quality of life and branding of a city. The exchange of best practices allows cities to duplicate and improve upon successful strategies and we hope that many cities find inspiration in our examples and recommendations.

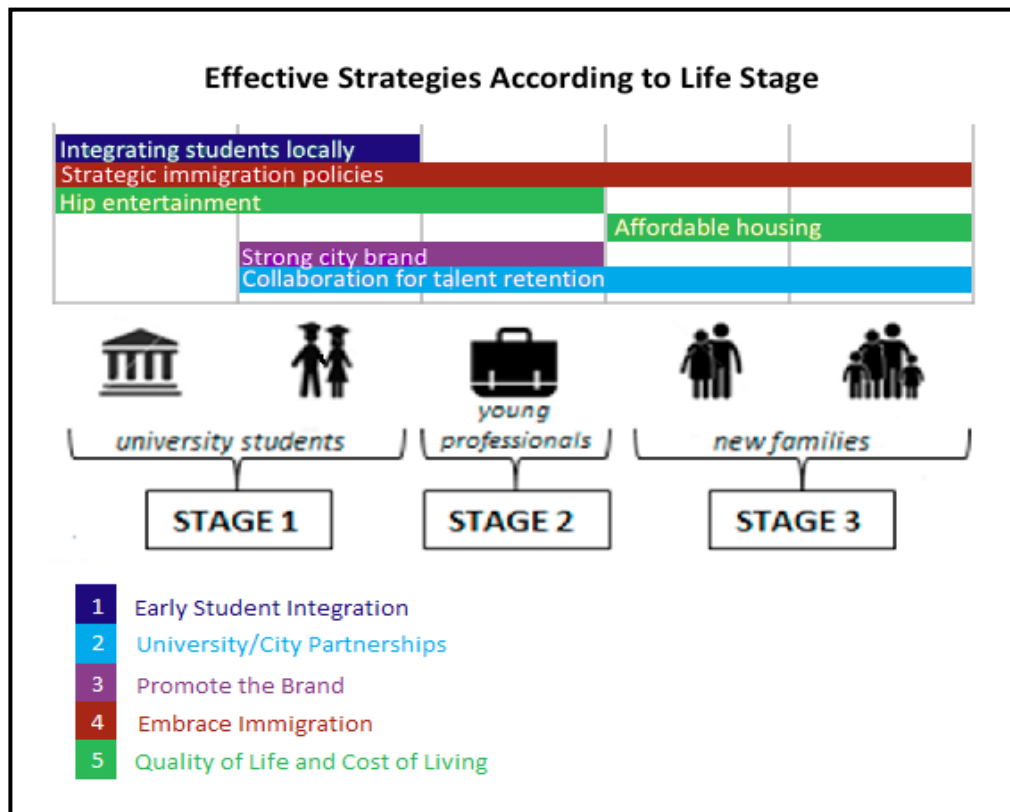


Figure 1



METHODOLOGY

This report combines the expertise and experience of WCCP partner cities. In June 2011, partner cities gathered to decide upon a research topic for the year: all cities agreed that talent attraction and retention was a great concern and worthy of research. Each city partner group agreed to submit a report on talent attraction and retention efforts in their respective cities for the Annual Summit in June 2012. City reports contain examples of best practices of policy and programs that retain and attract talent within the economic context of each city. Partners made sure to emphasize the practicality and applicability of the recommendations to ensure that this document would have great value for policy makers and practitioners. During summer and fall 2012, WCCP staff gathered the individual city reports, analyzed data across the partnership, and produced cross-case recommendations that reflect the best of the World Class Cities Partnership. Partner cities were all engaged in editing and producing the final report. Please note that the report content does not include all cities in the partnership due to changes in representation that did not allow enough time for research and analysis to be accommodated to meet reporting deadlines.

In addition to the city reports, a spring 2012 graduate capstone class in Urban and Regional Policy at Northeastern University gathered data from LinkedIn, the online professional networking site, to see where college-educated workers settle after graduation. Student researchers identified where graduates attended college, the year they graduated, and where graduates are currently living and working. These data do not make the distinction between various degree programs (a 2-year degree, a 4-year bachelor degree, etc.). Also, certain countries on LinkedIn report location by country rather than by city, limiting the retention comparison between cities. Student researchers also recognize the self-selecting and self-reporting nature of the sample and cannot conclude that these data are statistically significant. The data, however, illuminate the discussion on retention efforts, particularly through building connections in the first and second stages of talent retention (college tenure and graduation, and the 5-7 years post-graduation). Cross-referencing the LinkedIn retention rates with several reports from university officials shows that the university-reported retention rates are lower than the LinkedIn retention rates, likely the result of LinkedIn data not capturing the retired worker population which often moves (to warmer climates or to be near family) and would thus lower the retention level for the area. LinkedIn retention rates, however, show consistency when compared across universities. In Boston, for example, the University of Massachusetts self-reported retention and LinkedIn rates are both higher than Northeastern University's retention rates, which are higher than Tufts University and Boston University.

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